Chicago Medical Review

Published on the Fifth and Twentieth of the Month.

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Chandler & Engelhard, Publishers

Editorial Office, 70 Monroe St. Business Office, 60 Wabash Ave.

Vol. 2. No. 1 CHICAGO, JULY 5, 1880. $2.00 a Year

The National Board of Health, about a year ago, had at its disposal an appropriation of 550,000 dollars. This money is almost gone and an appropriation of 75,000 dollars has recently been called for by a bill which elicited considerable discussion in the House of Representatives. One amendment was proposed, striking out the 75,000 dollars and substituting 125,000 dollars and another substituting 150,000 dollars. After a stormy debate, in which the board was arraigned for extravagance the bill, as originally reported, passed. During the year in which the board consumed this large amount of money no unusual epidemic was reported. How much would it cost to support this National Board of Health during a year of plentiful yellow fever or cholera? The fact that yellow fever did not flourish to any great extent last year is not much evidence that "the board stamped it out" as it claims. The officious and oracular and demonstrative procedures of the board during the past year have not convinced the nation and the profession of its usefulness. Its treatment in the House of Representatives is evidence of this fact and points strongly to the abolition of the board as at present constituted. This may be said, with no reflection upon individual members of the present board, many of whom we know to be of unquestioned ability and integrity.

Manifestly the sanitary interests of a nation demand sanitary government and the requisite power must necessarily be delegated somewhere. Dr. Henry I. Bowditch, in an article published in the Boston Medical and Surgical Journal, January 8, 1880, proposes a reasonable solution of the problem. He would have this power vested in a cabinet officer, the Secretary of Health, who should hold co-ordinate rank with other members of the cabinet; he should reside at the seat of government; he should have the right in great emergencies to summon sanitarians for purposes of consultation. He should also have an advisory council always accessible, for advice and support, and without whose support he could take no important step, and this council together with the cabinet officer should constitute a National Board of Health. This board should confirm all the doings of the secretary and by a two-thirds vote of the whole board should have the power to veto any proposed action of the secretary, in which emergency an appeal to the President should be made, who,with the secretary, should have absolute power. The English government has adopted a similar plan. Such a plan would have all of the advantage of centralization, and, by giving the health officers absolute power, would enable them to act promptly and efficiently in great emergencies. It should be so organized as to render the national health department analogous to the national war department,which has in times of peace a nominal standing army, but which has the capabilities for almost unlimited expansion in the emergency of war. The war department does not in time of peace need 500,000 men to demonstrate its usefulness. Nor does the health department in time of health require a 500,000 dollar demonstration of its usefulness.

The American Medical Association. — A study of the arrangements which have characterized the association's junketing programmes and the derangements which have characterized its scientific proceedings, have given us an inadequate estimate of its true field of usefulness. But it is evident that the association has capabilities hitherto unsuspected, that

it has actually made its debut as an advertising medium and that its success in this direction rivals that of the "greatest show on earth." We hasten to congratulate the business firms of New York which were able to hold out to the membrs a more attractive programme than that furnisned by the regularly appointed committees. On the one hand delegates could amuse themselves with the Association's programme, the madness of which, was characterized by the usual lack of method and scientific excellence; on the other hand with steamboat rides down the harbor and with a variety of other diversions in which perfect facilities were offered for the inspection of the inevitable specimen number, or of "our latest modification of the bi-valve, tri-valve, quadri-valve or poly-valve speculum," or of this particular brand of assafœtida which, by a special process, under the personal supervision of "our own chemist," represents four times the usual strength and has been absolutely emancipated from its usual odor and taste. One of the most notable papers read during the session was on "Asphyxia or the Therapeutic Effect of Feathers." by Edwin Booth, at Booth's Theatre, June 2. It was contributed through the influence and beneficence of certain manufacturing chemists who have the scientific welfare of the profession very much at heart. This paper should be published in the transactions, together with a fitting eulogy on the manufacturing houses to whose disinterested benevolence it may be accredited. "Not dead, not yet quite dead." "I would not have thee linger in thy pain." "O Desdemona, dead? dead? O! O! O!"

The Inspection of Milk.—Last year the health department of Chicago, made war upon the milkmen. It was believed that the milk supply of the city was very commonly inferior, and the attempt was made to establish the fact, but the experts to whom the inspection and examination had been entrusted did not succeed in establishing the reliability of their conclusion, and the milkmen therefore having made good their defence, were enabled to defy the department, and retain their licenses. A few months ago Mr. R. S. G. Paton, an accomplished chemist, received the appointment of chemist of the health department. Mr. Paton has examined fifty specimens of milk taken from the stock of as many milkmen, and his work has been of that scientific and accurate character which commands confidence. Of the fifty specimens examined, sixteen are reported pure, seventeen skimmed, only two watered, ten poor or very poor; the remaining five in various ways, and in varying degree fall below the standard. In this city are more than six hundred milk peddlers; this report therefore passes upon only about one-twelfth of the entire number, and assuming that it gives a fair idea of the average character of the milk offered for sale, it follows that about one-third of all the milk furnished by milkmen is pure, and that about two-thirds falls below the standard, and that of the two-thirds a large part falls very much below. The dairymen in the vicinity of Elgin, whence a great part of our milk comes, a short time ago held an indignation meeting, of which the object was to ascertain the reason why Chicago milkmen, after paying the cost of transportation and of delivery, could furnish milk to the retail dealers at a lower price than was paid for the raw material in Elgin. This subject at all times is of vast importance, but never so much so as in the beginning of the warm months, when impure milk is capable of destroying the life of thousands of infants. It becomes the bounden duty of every medical man, to look carefully into the milk supply of his infant patients. The plain facts of this subject are axiomatic and require very little comment.

To Make Leeches Fasten.—The Ohio Medical Recorder has the following: Almost every physician has at times experienced the difficulty of getting these animals to bite. The following plan is commended, and will be found effectual in all cases, when the leeches are healthy: Put the animals into a small glass vessel half filled with water. The part of the body which is to receive them is carefully washed with warm water, and the glass is quickly inverted upon the skin. The leeches attach themselves with surprising rapidity. When all the animals have bitten, the glass is carefully removed, the water escaping being absorbed by a sponge. If a single leech is to be applied, the same plan is adopted, using a test tube in place of a glass; by this means the animal may be compelled to bite at just the point desired.

Paraphimosis, Simple Method of Reduction.—The Chicago Medical Journal has the following from Le Practicien: In very difficult cases, where ordinary means fail, Bardinet takes a hair pin, presses the points somewhat together, and inserts the curved end under the strangulation back of the gland. He then applies a second and a third at intervals around the gland, then drawing the prepuce forward, reduces it with great facility, the skin sliding over the three bridges without obstruction.

One of our New York exchanges in an advertisement makes the astounding revelation that its "volume begins with January, but subscriptions may begin with any month."

Nerve-Stretching of the Large Trunks in Tabes Dorsalis.—Dr, Langenbuch, of Berlin reports (Berliner klinische Wochenschrift, No. 48, 1879) the following interesting case: A merchant, forty years of age, had been several months before attacked with symptoms of tabes dorsalis. When he entered the hospital the symptoms were so pronounced that there was no doubt that the disease was tabes dorsalis dolorosa. Besides thoroughly developed ataxia, there were peculiarly intense shooting pains in all four extremities. Romberg's symptom was present, and the typical disturbances of sensibility, especially in the lower extremities. In walking the patient threw off his slippers without being aware of it, and was unable to distinguish what he was walking on. From time to time, constriction, as of a belt, was felt. The reflex sensibility was somewhat augmented. The knee symptom was not present, but a high degree of myosis and hyperæsthesia of the skin were observed, especially on the anterior surface of the femur. All these disturbances of innervation were also present, though in a less degree, in the upper extremities. The patient was tortured by incessant pain, in spite of all sedative treatment. As the pain was most intense in the region of the left sciatic nerve, Dr. Langenbuch proposed to stretch it. With the patient's consent the operation was performed, September 13, 1879. The trunk of the sciatic nerve appeared somewhat reddish, injected and swollen. Under anæthesia, it was thoroughly stretched and sutures and antiseptic bandages applied. The wound healed in a few days the patient having experienced entire absence of pain from the moment of the operation. The immediate consequence of the stretching was motor and sensory paralysis, which disappeared in a few days without any return of the pain. Twelve days after the first operation, Dr. Langenbuch was able to proceed to the stretching of the right sciatic, and both of the crural nerves in one operation. Under antiseptic treatment the wounds healed in a short time. This operation was followed by the same results as the former; the pain disappeared permanently, and the normal mobility and sensibility were regained in the course of a few days. When the patient made his first essay at walking, he expressed himself that he now at least knew what he had beneath his feet. The first attempts at walking were feeble and incomplete, but improved rapidly. The unexpected fact was soon discovered that the ataxic symptoms had disappeared at the same time. When the patient had so far recovered that he was able to walk moderately well, he left the hospital. Later he entered another hospital, while it was found on examination that the ataxic symptoms had entirely disappeared, and that there was no diminution of sensibility in the lower extremities. The patient was able to walk with the aid of a cane, and complained only of the above named symptoms in the upper extremities. The results of nerve stretching in this case, in which the tabes probably commenced in the peripheral nerves, should recommend its trial in like cases, as the operation if properly performed is innocent, and the disease usually a desperate one. Antiseptic precautions must be strictly observed, as they are absolutely necessary for the success of the operation.

Oxalate of Cerium for Cough.—Dr. A. H. Smith, (Medical Record, May 1, 1880), on this subject concludes as follows: I. Oxalate of cerium could be safely administered in doses of ten grains, three times a day, for many days in succession. II. The only unpleasant symptom, when so used, was slight dryness of the mouth, that appeared after several days. III. It was probably the most efficient when administered dry upon the tongue. IV. Its effects were not produced until two or three days after its use was begun, and lasted for two or three days after the remedy was discontinued. V. It was most efficacious in the treatment of chronic cough, and the initial dose should be five grains. VI. In the majority of cases it had not proved an efficient cough medicine for any considerable length of time, but could be regarded as a valuable agent to be employed in alternation with other remedies. VII. It did not disturb the stomach; on the contrary it relieved nausea, and improved digestion. VIII. Different preparations upon the market were not equal in value; and when success was not obtained by one, another should be substituted.

Iodoform in the Treatment of Otorrhœa.—Dr. S. Pollock, in the Medical and Surgical Reporter speaks of this treatment as follows: Chronic catarrh of the middle ear is notoriously obstinate in its course, yielding to no treatment ordinarily resorted to by the average practitioner of medicine. Having been disappointed in the results of treatment, even the maneuvers of Politzer's bag; inflating the drum cavity at regular intervals; systematic catheterizing and vaporizing with iodine; dilating the Eustachian tube, and all the internal medication usually employed, I was recently impressed with the idea of trying iodoform locally, and am surprised with the good results. Cases rebellious to everything usually done in such conditions have improved rapidly. The following is my mode of treatment: With a cotton carrier or any convenient instrument, and fine clean cotton wool, thoroughly cleanse the external

auditory canal, down to the membrana tympani, using, of course, delicateness of touch, so as to render no pain or reflex irritation of the upper air passage causing cough, etc. Then apply the following powder every three days, or oftener if the case requires it, i. e., if there is copious discharge of offensive pus: Iodoform, two drachms; Tannic acid, one drachm. Triturate very thoroughly, to an impalpable powder, and place a few grains of it in the end of an annealed glass tube about six inches long and one-fourth of an inch in diameter. Then, with the thumb and forefinger of the left hand, pull the auricle upward and backward, thereby straightening the external auditory canal, and insert the loaded end of the annealed tube therein, apply the mouth to the other end of the tube, and give a gentle puff, throwing a whirlwind of medicinal dust down the passage, through the opening in the drum-head, if there be one, and there usually is in these cases, back into the mastoid cells, down the Eustachian tube, and completely storming the whole mucous lining of the auditory apparatus, and in a better manner than can be affected in any other way.

Chian Turpentine a Cure for Cancer.—The Ohio Medical Recorder, June, 1880, contains the following abstract from a paper in the London Lancet, which records four cases of carcinoma uteri, treated by Chian turpentine, with the results of checking bleeding, fever and pain, which were rapidly followed by diminution in the size, and finally, entire disappearance of the morbid growth. The question of accuracy in diagnosis, of course cannot arise when Professor John Clay is the observer, but the details of each case are fully given. The first patient, aged 52 years, suffered from scirrhous cancer of the cervix and body of the uterus. Hemorrhage was excessive, pain of the back and abdomen agonizing, and cancerous cachexia well marked, the uterus so extensively destroyed that its cavity readily admitted three fingers. Six grains of Chian turpentine with four grains flowers of sulphur, were made into two pills, and both administered every four hours during the day; no opiates nor lotions used. On the fourth day the patient reported herself greatly relieved from pain, in better spirits, but complained of vaginal discharge which consisted of a dirty, white, tenacious secretion, without blood or fetor; on the twelfth day, this was replaced by a somewhat serous fluid. The os would only admit one finger; the patient's general health was much improved; medicine well tolerated. In the twelfth week "the parts feel ragged, and do not bleed on roughly touching them." The other three cases were of the same character, two of much more advanced condition, with enormous cancerous tumors; the treatment resulted in all, in the same way, steady improvement. In one, on account of the size and fungosity of the tumor after diminution under the turpentine had commenced, vaginal injections were used, in one instance, solution of perchloride of iron, in the other, arsenical solution, which Mr. Clay thought assisted in reducing the growths. Many experiments were made, in which various remedial agents were added to the turpentine, and the other varieties of turpentine were also tried, but owing to effects upon the digestive or other organs, which were more or less harmful, preventing the necessary constancy in the use of the medicines, they were all cast aside, except the sulphur. In order to administer the medicine in other than pill form, Mr. Clay gives the following formula which is said to be agreeable and readily taken for weeks together. An ethereal solution of the turpentine is prepared by dissolving one ounce of the turpentine in two ounces of pure sulphuric ether (anæsthetic):

℞	Solution of Chian turpentine,	℥ ss.
	Solution of tragacanth,	℥ iv.
	Simple syrup,	℥ j.
	Flowers of sulphur,	ʒ ij.
	Water,	q. s. ad. ℥ xvj.

M. S. Dose, one ounce three times daily.

The remedy appears to act on the periphery of the growth with great vigor, causing speedy disappearance of infiltration, and arrest of the further development of the tumor. Pain is promptly arrested, as are the hemorrhages. The cicatrization leaves the cervix nodular to the feel, and examination through the speculum shows the cicatricial depressions. Glandular involvement is prevented, and the peculiar cancerous cachexia disappears. The evidence adduced by the observer is of the most encouraging character, and the treatment certainly deserves extended trial. Patience and perseverance on the part of both physician and patient are requisite, and the aphorism of Trousseau must not be forgotten that "chronic diseases require chronic remedies." If this agent proves as valuable as these cases indicate, in malignant disease of the uterus, may we not expect also good results when the disease affects other organs?

The Bromide of Ethyl.—Two more deaths from this agent, one of them at the hand of Dr. Levis, its champion, have dampened the ardor of the profession to such an extent that the agent has almost fallen out of use and out of mind.

The American Association of Medical Colleges has adopted a resolution by which all colleges belonging to the Association muts require three courses of lectures.

Ovariotomy.—The British Medical Journal contains an editorial mention of Mr. Spencer Wells' one, thousandth ovariotomy, which was performed on Friday, June 11, 1880. A brief abtract of this editorial will prove interesting. The completion of one thousand operations was the brilliant consummation, under relatively easy conditions, of a struggle commenced under diametrically different auspices. In 1857, when Mr. Wells began, the operation had fallen into disrepute, and the operation which McDowell had originated forty-eight years before, had until then been taken up by others only with reluctance and timidity, and never with that success which inspires confidence. Ovariotomy was then, as Mr. Keith said, "simply nowhere." Dr. Clay, who has achieved fair success in the provinces, had failed to convert either the provincial or metropolitan surgeons. So unjustifiable was the operation regarded that the brilliant and blighted Baker Brown on account of his many failures was threatened with an inquest on his next fatal case, and had not operated for two years when Mr. Wells began. Liston had stigmatized ovariotomists as "belly rippers." The great hospital surgeons were indefatigable in throwing discredit upon them. Besides great personal supervision of the minutest points of general after-treatment, Mr. Wells at once put in practice and strenuously advocated certain details of manipulation, and of therapeutics previously more or less disregarded. He discarded the plan of tying the pedicle and leaving the ends of the ligature hanging out through the wound; he shortened the abdormal incision, and emptied the cyst before attempting to draw it out. He practiced extra-peritoneal treatment of the pedicle, and did not recur to the intra-peritoneal method, until antiseptics altered the whole position of the operation. He included the peritoneum in the sutures, uniting the abdominal wound, a practice based on scientific experimental evidence demonstrated by his preparations, which show the effect of sutures in uniting abdominal wounds in animals, now in the museum of the College of Surgeons. He did not insist on the administration of opium after operation unless indicated. He objected to a stifling temperature in the operation room. By the exhibition of specimens illustrating anomalies in ovarian diseases, and rarities in pelvic tumors, for which every operator must be prepared, and by the free publication of his statistics, he caused ovariotomy to be recognized as a legitimate procedure. His first five hundred cases showed a mortality of 25.4 per cent; the next three hundred, a mortality of 25.6 per cent; the next hundred, 17 per cent; the concluding hundred cases, 11 per cent. During the past two years, Mr. Wells has operated with antiseptic precautions, which doubtless accounts for the low mortality of eleven per cent. in the last hundred cases. Lord Selborne once demonstrated that Mr. Wells' first three hundred cases represented a total gain of 10, 817 years of human life. Muitiplying his 768 recoveries by 29, the insurance life expectancy number, 22, 272 years human life appear to have been saved by the direct agency of Mr. Wells. Mr. Wells has rescued the operation from the discredit into which it had fallen, and established it as a surgical procedure of marvellous success, and for this he is justly regarded as the greatest ovariotomist. Doubtless he would be entitled to the honor of being the most successful, were it not for the marvelous series of seventy-three operations without a single fatal result, by Thomas Keith, of Edinburgh.

Symmetrical Gangrene of the Feet in Typhoid Fever.—Dr. Richard, in La France Médicale, reports the following observations which are abstracted in the Canada Medical and Surgical Journal, June, 1880: Four young persons, brothers and a sister, living at Philippeville, under the same roof, were attacked with typhoid fever. Two of these patients presented a condition of symmetrical dry gangrene of the lower extremities, superficial gangrene which resulted neither in death, nor in loss of the affected members, but only in partial and spontaneous separation and dropping off of the toes. Dr. Richard compares this form of gangrene to that described by M. Maurice Reynaud, under the title of symmetrical gangrene of the extremities, and he thinks they should be regarded as of spinal origin. These cases, therefore, should come under the history of the spinal form of typhoid fever. One of the patients presented, besides the symmetrical gangrene, signs of myelitis, hyperæsthesia, paresis of the lower extremities, interference with micturition, all of which supports the idea of this mode of origin.

The Treatment of Chronic Eczema. — Avoid the use of soap as this is irritating. Twice a day, bathe the part in an aqueous solution of borax, one ounce to the pint. Dry without friction and freely apply the benzoated oxide of zinc ointment, then bandage the part firmly with old dry muslin which has been previously wet with a saturated aqueous solution of borax. Over this apply a bandage of oiled silk, in such a manner as to exclude the air perfectly. Let the bowels be kept regular. In the majority of cases eczema may be promptly cured by the simple exclusion of the air. Eczema of the fingers will generally yield in a few days if the air be excluded by the ordinary rubber cot.

Cerebral Thermometry.—At the meeting of the French Biological Society, of April 10, a specimen was presented by M. Poncet, which was of considerable interest, both from a surgical point of view, as well as on account of its bearing on the question of cortical localizations. It was obtained from a young soldier who perished from typhoid fever. There was found on the autopsy a healed, depressed fracture of the left frontal bone, accompanied by a considerable loss of substance of the anterior cerebral lobe of the same side. There was also a hiatus in the dura mater, corresponding to the cranial depression and the cortical defect. The latter was estimated to equal in bulk nine cubic centimeters of brain substance, and the centres number five and twelve of Ferrier, in other words, the so-called centers of the ocular and forearm movements had been entirely destroyed. The patient had, as a boy of twelve, fallen into a pit, fracturing his skull, and brain substance escaping at the time of the injury. In consequence of this injury, he had, on reaching the age of conscription, claimed exemption from military duty. But his claim had been disregarded, and he made a good soldier, though he had a tendency to left-handedness. There was never observed the slightest mental defect, nor anything abnormal in the movements of his eye, eyelid, or forearm, although he was carefully examined while in the hospital. This case furnishes quite a commentary on the laboriously gathered observations of Amidon with the surface thermometer. Few of our readers may have toiled through the elaborate monograph referred to, and we will therefore state for their information that this writer has applied the surface thermometer to the scalps of human beings, while the latter went through certain special movements. If, after a series of such observations, he found the temperature to rise at a certain point, with a certain movement, he concluded that he had touched the point of the skull corresponding to the cortical centre of the acting muscle. And he has accordingly constructed a cerebral chart which far exceeds anything ever projected by Ferrier, at least in minuteness and multiplicity of centres.

Aside from the conflict into which the surface thermometrists have entered with some of the simpler laws of physics, the reflection immediately strikes the reader that if, as Amidon claims, almost the entire cortical surface claimed to be accessible to thermometric observation, is motor, then the sensory registrations, and the higher intellectual faculties, are in a pretty bad way, and must content themselves with the hidden nooks and corners of the encephalic mass. A very easy way of disposing of them! The farther reflection strikes the reader that if cortical tissue metamorphosis and the resulting liberation of heat, whether vascular or bio-chemical, may be measured so readily, why has Dr. Amidon not subjected the activity of the sensory centers to a similar test. For example he might have noted the difference in the reaction of the surface thermometer, noticeable on two persons, one a disciple of Wagner, the other his bitter opponent, while a few bars from the Götterdämmerung were being played. The center of the sexual impressions could be equally clearly determined on this principle, and, in fact, we must admit that if the principle of cortical temperature measurements were a correct one, and if those engaged in this work paid some attention to the elemental factors entering into the chief intellectual operations, then medical jurisprudence could be reduced to an exact science. The criminal and the lunatic could be differentiated by the surface thermometer—Selah!

Treatment of Itch at the St. Louis.—In the Medical News and Abstract, June, 1880, Prof. Hardy is represented as having employed for eighteen years, in the treatment of itch, an ointment of lard, one part; flowers of sulphur, one-sixth part; sub-carbonate of soda, one-twelfth part. Thorough and almost violent frictions of this ointment, continued for twenty or thirty minutes, especially at the natural bends and folds of the skin, always cure. The friction was repeated only once in four or five thousand cases, and all the patients were cured. After rubbing, the ointment should remain all night. On the following day an emollient bath may be taken. This may be repeated daily for a week.

Intestinal Obstruction.—A remarkable case of intestinal obstruction is reported (Berliner klinische Wochenschrift) by a physician in a Rhenish city. The obstruction was caused by a fibroma growing from the muscular coat under the ileo-cœcal valve, and had been complete for three months. But if the preservation of life for this period, and under such circumstances is itself remarkable, the further fact that through pressure this tumor had caused complete and almost continuous obstruction of both ureters for the same period of time, may well be considered almost unprecedented. The patient was a girl eight years old, and death occurred through rupture of the lower part of the ileum.

Rush Medical College, after March 1, 1883, will require an examination for matriculation. The examination is to include arithmetic to cube root, natural sciences and English composition. The college is to be congratulated upon its recognition tardy though it be, of the requirements of advanced medical education.

THE PATHOLOGY OF INSANITY.—Within the past ten or twelve years, physicians of insane asylums, particularly in Germany, have struck a new line of research in the pathology of insanity, and one, which seems to us, not only to be a logical one but also as likely to prove exceedingly fruitful in results, if we may judge from some cases which have come under our own observation. It has long been known that in a considerable number of the insane, anomalies in the shape of the skull are found, and that these chiefly run in the direction of a peculiar asymmetry, exceeding by far that slight asymmetry which no human skull is entirely devoid of. For a long time this observation has stood alone and has not been associated with a study of the cerebral development or of the clinical history. These defects are now being supplied. Muhr, Hadlich and others, have found that such asymmetry affects not only the cerebral hemispheres in mass, but exercises a much deeper influence, altering the relations of the gyri and sulci in a remarkable degree. With this the basilar ganglia and tracts are found irregularly developed, the corpus callosum is partly or entirely deficient, and the cerebrum may be uncovered in extreme cases like the one observed by Muhr. Clinically such cases range all the way from the primary vesania of the Germans, down to imbecility with morbid impulses; epileptiform attacks are a frequent complication. Moral perversion seems also to be intimately related to such aberration of cerebral development.

These observations, we believe, can be brought into relation with older ones made by Zenker, Hasse, Virchow, and Rokitansky, showing that a genuine heterotopia of gray substance is found in some cases of congenital mental alienation; that is, islands of grey substance are found in the very centre of the oval white centre of Vieussens. In an analogous case, where, remarkably enough, a steatoma of the cerebellum coexisted, we have found a gray mass containing nerve cells of the small calibre characteristic of the corpus striatum, in the midst of the internal capsule, and completely isolated from the surrounding gray masses. The disturbing influence which such abnormalities must exercise on the development of these medullary fasciculi which anatomically associating the most distant cortical areas, we are justified in assuming to constitute the basis for the logical processes, must be evident, although this deduction will probably never be confirmed by exact demonstration. Certainly to trace anomalies of mental association and control to anomalies in the cerebral architecture, is, in the case of congenital cases, far more logical than to seek for structural changes, as some of the routine pathological workers of some of our asylums seem inclined to do. Another suggestive line of study is opened by this method of inquiry. It is found that any of the anomalies found in cases of atypical cerebral asymmetry in the defective cerebral hemisphere, are repeated in both hemispheres of certain idiotic brains, and on comparing a large number of cases, we find that there is every connecting link between certain cases of primary vesania on the one hand, and congenital monsters with a rudimentary forebrain on the other; the series beginning with convolutional defects, and heterotopias, and after passing through peduncular asymmetries, ending in the latter anomaly. Now as defective development of the forebrain, with absence of the great longitudinal fissure is derivable from a faulty development of the upper germ-layer of the earliest embryos, it may be properly assumed that those lesser anomalies, associated with a higher degree of mental power, perverted though it be, are also derivable from similar, though less profound and later occurring disturbances in the arrangement of the embryo and embryonic germ-layers. In other words, just as we are able to obliterate the sharp demarcation which some have seen fit to establish between idiocy and hereditary insanity by a series of clinical comparisons, so we are enabled to establish a common and purely ontogenetic basis for both these conditions in common. Though the psychological contrast between a true idiot and a case of intellectual insanity may appear immense on first sight, yet he who is accustomed to analyse critically, will see in both only the extreme ends of one chain of results.

It is well known that in families afflicted with hereditary insanity, the insanity transmitted to the offspring is often an intensification of that present in the parent. Morel has even noted that insanity may change its type in the course of such transmission; that, for example, a highly intellectual monomaniac may have an absolutely idiotic or imbecile, or possibly an epileptic, imbecile child, is not a rare observation. These facts are in perfect accord with our general conclusion hinted at above, namely, that idiocy, imbecility, hereditary epileptic alienation, and certain cases of hereditary moral and intellectual perversion have a common somatic basis, for a somatic evil is often intensified in the offspring. It cannot be denied that here we have a rich field for research, and it were to be wondered at if extravagant theorists had not seized on it and gone to absurd extremes, or made crude observations in it. Thus Benedict, of Vienna, whose observations may, since his reported cures of organic nervous diseases, such as tabes dorsalis, be regarded with justifiable suspicion, claims to have found that in a considerable number of criminal brains, the cerebrum overlapped

the cerebellum, as in the apes. The fact that no competent observer has ever found such a condition in the ordinary criminal, whether house-breaker or brutal murderer, conjoined with the fact that Benedict has, in the Vienna Medical Society, been publicly denounced by Heschl and Meynert, on account of the untrustworthiness of his methods and observations, may suffice to show how careful we should be in accepting the conclusions presented in monographs of a certain character.

The Pancreas.—Comparatively little is known of the pathological role played by the pancreas. This is partly due to the obscurity which enshrouds the diagnosis of pancreatic disease, and partly to the rarity of isolated disease of this organ, which is more usually affected in conjunction with neoplasms and ulcerations of the gastro-duodenal tract. The Vienna pathologists seem to have been particularly fortunate in discovering cases of purely pancreatic disease, and these are of such a character that, were they not substantiated by the evidence of most accurate and reliable investigators, some of these instances might be deemed to approach the realm of the fabulous. Already Rokitansky had noted a case where the entire pancreas was discharged per rectum; we believe recovery followed; and now Chiari reports a similar case, in which the entire organ, with its duct, was passed by a female patient in the same way. The patient had for some time previous suffered from tympanites and severe colic. The same observer, in an autopsy on a woman who had succumbed to diffuse suppurative peritonitis, found that the pancreas had been bodily detached from its natural attachments by a hemorrhagic extravasation, resulting from ulcerative erosion of the pancreatic artery, remotely traceable to a perforating ulcer of the duodenum.

The Pathogenesis of Asthma, is as yet involved in so much obscurity that we welcome every contribution on this subject. About eight years since, Professor Leyden (now of Berlin) described the existence of peculiar crystals in asthmatic sputa. These bodies seemed identical with the crystals, found by Charcot and Robin in a leucæmic spleen. Leyden found the sputa rather scanty during the asthmatic attack, but more copious afterwards, transparent and almost glassy, but sprinkled with numerous flocculi. Amongst the latter there are some smooth, rounded or rod-shaped clots, friable and dry in consistency. When spread out on the glass slide they are seen to consist of a convolution of brown, granular cells, between which the crystals are found in the shape of pale, colorless octahedrons, some of a striking size, others hardly visible on account of their minuteness. Leyden could not find such crystals in any other sputa but those of asthma, and hence inferred a causal relation to that disease. He ventured the hypothesis that the attack is due to irritation of the nerve-ends, from these sharp crystals. Since their first description but little reference can be found to these crystals in the current literature. An interesting article now appears on this subject by Dr. E. Ungar, of Bohn, (Centralblatt fur klin. Med. I. 1880) from which we take the following notes: Dr. Ungar has examined the sputa of twenty-three asthmatic patients, of whom two were females. One of these suffered likewise from chronic bronchitis, all others presented no other respiratory anomalies. In a large number of other patients not afflicted with asthma, the author has seen such crystals in the sputa only twice, one of which cases was uncertain, since it was seen but once. In all cases of asthma the characteristic sputa were found. In their description the author agrees closely with Leyden. Some of the characteristic flocculi do not contain crystals, but in one case the author saw the crystals form on keeping the specimen in the moist chamber. The size of the crystals bears some relation to the time when expectorated. In the beginning of the asthmatic attack the crystals are very delicate and small, while later or during the remission they appear larger. The number of crystals varies in different persons, without recognizable cause. Apart from the characteristic formation no other crystals were ever found with the occasional exception of oxalate of calcium. Dr. Ungar's observations hence support Leyden's hypothesis.

Intra-Uterine Injections of Per-Chloride of Iron for Post-Partum Hemorrhage. Dr. Pollard, (British Medical Journal, April 24 and May 1, 1880) summarizes all the cases of death reported in Great Britain during the past twelve years as occurring from a single injection of the perchloride for post-partum hemorrhage. He finds that puerperal fever is not one of the results to be feared from this practice. Two accidents may result, one (of which we question the possibility) is the injection of the fluid through the Fallopian tubes into the peritoneal cavity; the other, which is more probable, is the passage of the injected fluid into the uterine venous sinuses, which may cause phlebitis, embolism and death. Dr. Pollard gives certain directions for the prevention of the latter accident, but we would urge that he does not mention the wisest precaution of all, that of keeping the perchloride out of the uterus altogether. Injections of very hot water, strong vinegar, and tincture of iodine are believed to be equally efficient with the perchlorides, and to be devoid of its dangers.

A New Fracture of the Fibula. — M. Duplay (La France Médicale) has a paper which is abstracted in the Medical Press and Circular as follows: Two cases of an undescribed fracture of the upper extremity of the fibula were recently brought before the Societé de Chirurgie of Paris by M. Duplay. Both the men had been caught in a leather driving band. Above the situation of the upper end of the fibula was a bony projection contiguous to the tendon of the biceps, and immovable. Below there was a manifest depression. There was then detachment of part of the head of the fibula. The diagnosis was very clear in both cases. In one case, at each turn which the driving band caused him to make, the other side of his leg struck against the wall. In one of them, who had many fractures, there was complete paralysis of the extensors of the foot and the lateral peroneals, dependent on a lesion of the external popliteal. The second patient died suddenly, without our being able to find at an autopsy, the cause of death. We had not time to remark in him paralysis of the antero-external region of the leg. In the specimens exhibited from this patient, the nerve is seen to turn round the fracture of the bone, so that it must have been included in the lesion. In the first patient it is probable that osseous union will be impossible, but that nevertheless the functions may be re-established; it does not appear likely to be the same with the paralysis. The patient left the hospital some months after with the paralysis remaining, and has been heard of since as being in the same state.

Coccygodynia.—Prof. Edward W. Jenks, in a lecture reported in the Medical Record, April 17 1880, discusses this subject somewhat at length. His observations on the treatment are: I. Medicines in well marked cases are of but little avail. II. The operation of Simpson, tenotomy of all the muscular and tendinous fibres that are connected with the coccyx, not infrequently relieves the symptoms and effects a permanent cure. III. Extirpation of a part or the whole of the coccyx is indicated in all cases when Simpson's operation has failed; when the bone is diseased; when the coccyx is extremely painful and movable, with the point drawn forward by the action of the muscles, so that the mobile portion is at about a right angle to the remaining part and acts as a foreign body and as a constant irritant; when the bone is super-sensitive and anchylosed. In case the coccyx is amputated in the continuity by means of the cutting forceps, the author wisely cautions the operator to round off the stump, so that no sharp points may prick and annoy the patient whenever the skin in that region is made tense. Amputation in the contiguity or disarticulation is pronounced the better plan. The articular surface of the cartilage should not be left intact, but should be cut away in thin slices to facilitate the healing process. Extirpation, says the author, effects a radical cure. Probably the author does not intend to convey the idea that it always effects a radical cure, although that construction might be placed upon his statement. It should be borne in mind that the operation very commonly fails to cure, and that, for this reason, many surgeons of eminence, among them Thomas, of New York, are not enthusiastic in its favor.

Plugging the Posterior Nares. — The British Medical Journal abstracts the directions for a new method published by Dr. J. M. Spear in the Medical and Surgical Reporter. Dr. Spear suggests that probably the best impromptu device for this operation consists of a piece of round, fine-linked gold chain, slightly flexible and smooth, about one-tenth of an inch in diameter and an inch or more long, attached by one end to a fine waxed silk cord, a foot or more long. If such a chain be not procurable, a short string of metallic, cylindrical beads, or bird shot, commpressed on a cord, or small strips of sheet lead wrapped on a cord, might answer the purpose, the essential qualities of a nasal gravitator being smallness, smoothness, and slight flexibility. After providing an instrument, which can generally be done at any farm-house, the patient is then laid upon the back, the floor of the nose brought as nearly vertical as may be, and the loaded end of the gravitator lowered into the pharynx. Its arrival there will generally be announced by coughing, retching, or clearing up of the throat. The patient being then brought to an erect position, easily hawks up the weight and carries it forward on the tongue, when the operation may be proceeded with as usual. The practicability of this procedure he has had occasion to demonstrate frequently, and he finds it much less annoying to the patient than Bellocq's sound or other unyielding instruments.

Intestinal Calculus.—A French physician recently removed an intestinal calculus from a woman, which had been originally seated in the colon, causing alarming symptoms of obstruction. On examination it was found to be composed, as such calculi usually are, of concentric layers, enclosing a firmer nucleus. It measured ten by six centimeters in its principal diameters, and was composed chiefly of cholesterine, mingled with fatty bodies, lime and other salts. The nucleus consisted of cholesterine exclusively. The dislodgement was effected by repeated administrations of croton oil, coupled with rectal injections.

Inhalation of Benzoate of Sodium in Consumption.—The benzoate of sodium sensation has already come to an end, after a fair trial in different hospitals threughout Germany. Dr. Paul Guttmann, of the City Baraken-Lazarettes in Berlin, and Dr. Wenzel, from Professor Waldenburg's service in the Charité Hospital in Berlin, agree, after a thorough trial on over fifty consumptive patients, in the following conclusions: The temperature was not lowered in a single case. The treatment had no perceptible effect in augmenting or resisting loss of weight. As to diminishing the extent of the dull percussion, the results were also entirely negative. The treatment, in some cases, seems to have quite an effect on the bronchitis, so considerable that some of the patients after the inhalation have less cough and expectorate less for several hours. But this effect is only transitory, and is to be accounted for by the increased coughing and expectoration during the inhalation of the agent, by means of which the contents of the cavities and bronchial tubes are evacuated, and there is consequent cessation of coughing and expectoration, until the sputa gather again in them. A lasting diminution of cough and expectoration was not observed. The night sweats were not ameliorated by the treatment. We do not intend to say that this is the last word in regard to the use of inhalations of benzoate of sodium, because the number of recorded observations is not sufficiently large to warrant such a statement, but this article is intended as a warning against too sanguine expectations of the value of the so-called "specific" treatment of the old hereditary foe of mankind, a treatment which might easily be over-praised, and for which too much has already been claimed.

Progressive Myopia.—The Medical Press and Circular makes the following abstract of a memoir, by Dr. Abadie (Le Practicien) read before the Surgical Society of Paris, on partial tenotomy of the ocular muscles as a preventative of the development of progressive myophia: Resting on the works of Emmert, of Zurich, and the attempts of Græfe, he attributes posterior staphyloma to the pressure exercised by the external rectus on the optic nerve during converging movement. When the internal recti are insufficient to maintain the convergence, and there supervene the symptoms of vascular asthenopia, Dr. Abadie weakens the external recti by partially dividing their tendon. The operation, which is very easy, is the same as for ordinary strabismus, except that some median tendinous fibres are spared, which oppose the retraction of the muscle. This is, therefore, weakened without being displaced, precisely the end desired to be attained. This method of treatment has given good results when the use of prismatic glasses had completely failed. It may also be employed in cases where, as the result of incomplete paralysis of one of the muscles of the eye, there exists a troublesome diplopia without true strabismus.

Wood's Library for 1880, consists of twelve volumes, one being issued each month. Five volumes have made their appearance. The next is to be an exact fac simile without color of the magnified series of plates of Savage's Female Pelvic Organs. This volume, if well brought out, will be an exceeding valuable addition to the series. The series includes the following books: Venereal Diseases, by E. L. Keyes, M.D; A Treatise on the Continued and Periodical Fevers, by James C. Wilson, M.D.; A Treatise on Foreign Bodies in Surgical Practice, by Alfred Poulet, M.D., two volumes; Diagnosis and Treatment of Diseases of the Ear, by Albert H. Buck, M. D.; A Handbook of Physical Diagnosis, by Paul Guttmann, M. D.; Therapeutics, by A. Trousseau, M.D., three volumes; A Treatise on Common Forms of Functional Nervous Diseases, by L. Putzel, M.D.; Female Pelvic Organs, by Savage; and A Practical Manual of Diseases and Deformities of the Joints, by LeRoy M. Yale, M.D.

Dental Hemorrhage.—Dr. E. H. Danforth, in Dental Cosmos, says: I keep a piece of the very softest, finest sponge, which I wet and dry under pressure. In a case of hemorrhage after the extraction of a tooth, I cut off a piece about the size of the crown of the tooth, and, having first rubbed the side to be inserted with a little nitrate of silver, I dip it into tannin; then, with the point of an instrument, press it into the socket, and hold it there until it is saturated. It immediately adheres to the walls of the cavity, and, if properly inserted, will remain until it needs to be taken out. I have used this treatment over twenty years.

Sewage Irrigation.—The utilization of sewage for irrigation and fertilization has already been noticed in these columns. The experiments which have heretofore been made, as was there stated, have generally had a favorable result, except when the season has been very wet. The communes adjoining the forest of St. Germain, near Paris have united in a protest against extending the system of sewage irrigation to that locality. We gather from this protest that the municipality of Paris, proposes to take over three thousand acres of this beautiful forest, and convert it into a sewage farm, on the plan of the one already established at Gennevilliers. Some important facts or prejudices have been brought to light by the

communal committee, and are published in their protest. It appears that it was the original intention to pour three hundred thousand cubic metres of sewage per day, on the eight hundred acres of irrigated land at Gennevilliers. It has been found, however, that not more than one-tenth of this amount could be utilized. The inhabitants of Gennevillers and Asnières, it appears from the report of the committee, have suffered a real injury from the sewage. The level of the underground waters was formerly four metres below the surface. Since sewage irrigation it has risen two metres. Cellars which formerly were covered with water only when the Seine was very high, are now always filled, and their floors have been raised until there is no longer standing room. These are only a few of the instances of the evil effects produced directly by the sewage water. It is further objected to the proposed extension of the area under irrigation that the crops produced by such irrigation are neither varied nor profitable. Constant application of moisture keeps the soil much cooler than it otherwise would be. As a result of this the crops grow much more slowly, and come to maturity only after the proper season has passed. They thus bring a much lower price in the Parisian markets. The defence committee deny that the sewage imparts no appreciable odor to the air. They admit that during the day when visitors usually inspect the farms, no odor is perceived. But it is quite different in the twilight and evening of still summer days. At such times a faint but sickening odor of sewage seems to pervade the whole atmosphere. The committee do not affirm that malarial or other diseases have been increased by the sewage irrigation, but think it very probable that by increasing its area the health of neighboring communes would be seriously jeopardized. Such is a brief outline of the arguments of the anti-irrigationists. As was said in a former article on the subject of sewage, the problem of irrigation is not yet solved. We should remember, however, that the arguments given above are from a prejudiced source.

Lister's Gauze, as commonly offered for sale, is liable not only not to contain the guaranteed amount of carbolic acid, but little or none at all. Doctor Kaufmann, of Zurich, has been able to verify earlier observations made by Dr. Martin, concerning this subject, and has hence been able to account for the imperfect results of certain operations, supposed to have been performed with strictly antiseptic precautions. Dr. Kaufmann obtained in Lister's factory, June 17, 1879, a piece of so-called ten per cent. Lister's gauze, prepared under his personal supervision, and had it wrapped in a double layer of oiled paper. An analysis was made of the specimen October 4. 1879, in tha laboratory of Professor Nencki, at Berne, by the assistant chemist, Dr. Schaffer. From the results of this analysis it was found that instead of the supposed ten per cent. of phenol, the gauze, after three and a half months, during which time it was kept in the best possible package for the prevention of evaporation, contained only ninety-one one-hundreths per cent. Consequently the amount of carbolic acid in the gauze is not constant. Lister always uses the freshly made gauze, and pays great attention to this point, but it is a question whether even the freshly prepared gauze contains the promised ten per cent. of carbolic acid. An analysis of the fresh material will be necessary to decide this question. It is, however, safe to say that the antiseptic gauze to be obtained in shops is, to say the least, very unreliable. Every hospital or more extensive surgical institution should (as Cook County Hospital is about to do) prepare its own carbolized gauze, with a view to always having fresh material on hand for use. A method of preparing the antiseptic gauze, was given in the Review of June 5. and we should advise every surgeon to always have freshly prepared material at hand.

Statistics of Cancer of the Breast.—Doctor Oldekop (Archiv für klinische Chirurgie, vol. 24) summarizes Esmarch's hospital and private practice between 1850 and 1878. From forty-eight to fifty years was the most common age. Of sixty-one cases who had borne children, thirty-six had suffered from inflammation of the breast, and in nine of these it was ascertained that the cancer had originated in the resulting cicatrix. Of one hundred and twelve cases in which the disease returned, it occurred immediately in fourteen cases; within a month in fifteen; within three months in twenty-three; from the third to the sixth month in fifteen; from the sixth to the ninth month in thirteen; from tenth to the twelfth month in fourteen; from the thirteenth to the eighteenth month in nine; and from the eighteenth to the thirty-sixth month in eight. In one case (doubtful) the return did not occur until after the third year. At the time of the report, the disease had not returned in forty-four cases. Of these, six had died of intercurrent diseases, less than three years from the time of operation, and three had died of tintercurrent disease more than three years from the time of operation. In fifteen cases, three years had not elapsed since operation. Allowing three years immunity from the disease as adequate evidence of cure, twenty-six cases remain cured. Dr. Oldekop advocates early operation, and believes this to increase the chance of definite cure. This would doubtless accord with the generally received opinion.

CONTRIBUTIONS.

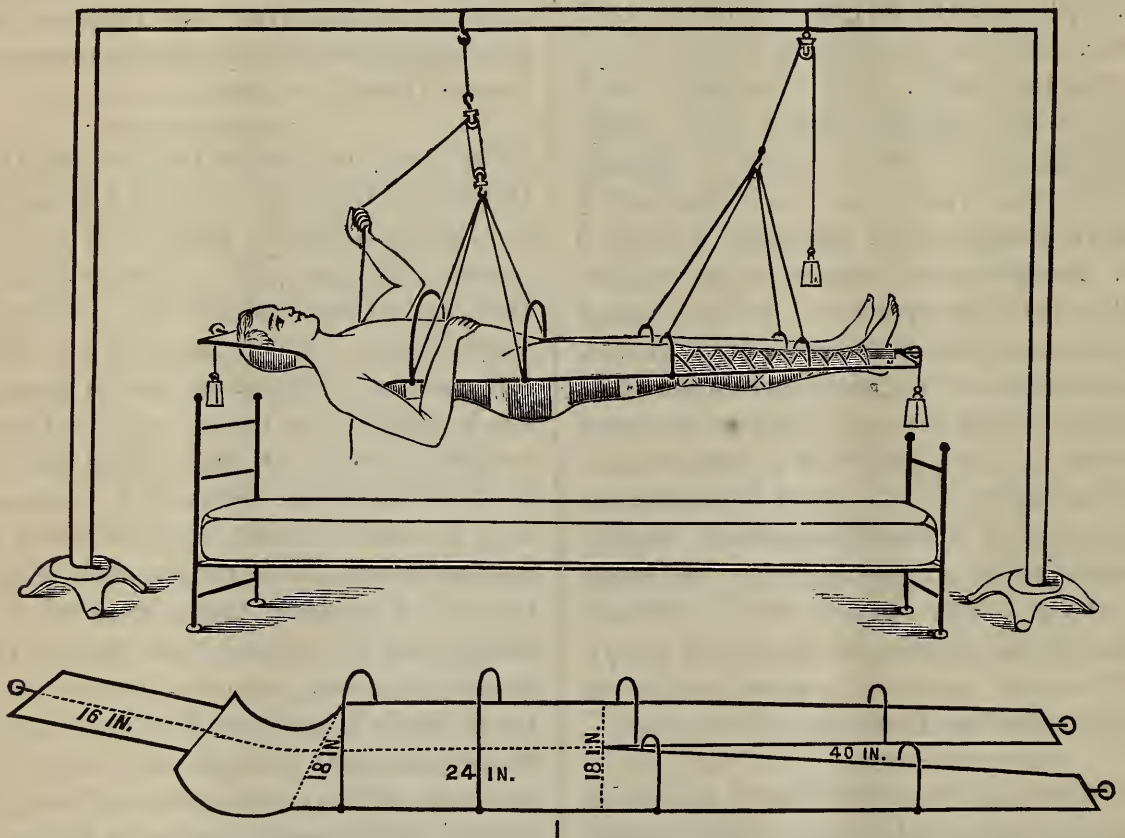
DR. VERITY'S UNIVERSAL SUSPENSION SPLINT.

BY CHARLES T. PARKES, M. D.
Professor of Anatomy, Rush Medical College.

This splint is made of one-half inch rod iron, except the arches over the lower extremities, for which one-fourth inch will be sufficiently strong.

The splint can be suspended from the ceiling of any room by means of strong staples driven or screwed into the rafters, or a separate frame can be constructed for its supports as shown in the accompanying diagram.

The material used for supporting the patient's body in the splint should be strong and inelastic, such as strong webbing, coarse heavy ticking, or double pieces of ordinary muslin. This material should be cut in strips from 6 to 10 inches wide and should be about 6 inches longer than the width of the splint or its branches. One end of these bands must be firmly fastened to either side of the splint, passed under the patient's body, drawn tightly over the opposite side of the frame and there pinned or stitched. Where this is done the splint is applied. Rearrangement of any of the bands can be made to suit the comfort of the patient.



By reference to the diagram it will be seen that suspension is secured by ropes attached to the arches over the body and then over the extremity, through the action of two compound pulleys. These ropes, (ordinary clothes line) are attached to the point where the arches join the sides of the frame

Extension acting over a pulley fastened to the lower ends of the frame, may be used on one or both extremities at the same time, by the application of adhesive strips to the limbs.

This splint is almost universal in its applications. Its chief recommendations are its extreme ease of application, no matter how serious the injury, its perfect safety, the comfort experienced by the patient, by allowing all his wants to be attended to by the most inexperienced attendant, or even by himself, without any disturbance of the injured parts; and the readiness with which the surgeon can rearrange dressings, no matter what part of the body is injured, if the injury be in such parts of the body, or of such a nature, as to render the patient helpless. The bed can be kept perfectly clean and can be cleaned whenever desired without any discomfort and almost without his knowledge and certainly without pain.

Surgical uses: Fractures of the vertebræ, fractures of the pelvis, fractures of the thigh, resection of the hip, resection of the knee, extensive burns, bedsores etc., etc.

Medical uses: Inflammatory rheumatism, paralysis, low fevers, in fact, in any disease during which the patient is helplessly bedridden and it becomes desirable to raise the patient from the bed for the purpose of cleanliness or for any other reason.

By action of the compound pulley the heaviest man can be raised clear from the bed with a very slight expenditure of strength either by himself or the most ordinary assistant.

By the removing of one or more strips of the supporting bandage, after having elevated, the most extensive ulcers or injuries can be dressed with ease to the surgeon and without distress to the patient.

Parts of the body subjected to constant pressure can have intervals of relief therefrom, can be bathed

and kept cool, and in this way the utmost may be done to avoid the formation of bedsores, and in the majority of cases prevent their occurrence.

In the treatment of fractures of the lower extremities it provides for any degree of extension, is applicable to any fracture, compound or simple, ordinarily dressed by such method, and at the same time provides for absolute paralellism of both limbs, a matter of the greatest importance. Any amount of counter extension can be obtained, from the head end of the frame, or through the depressed arches which receive the patient's shoulders.

The entire outfit covered to conceal the iron work, will not cost to exceed ten dollars. It can be made anywhere by the most ordinary mechanic.

It was my pleasure to show a model of this splint and explain its action to the members of the State Medical Society of Illinois at its late meeting in Belleville at the request of Dr. Verity, interne of Cook County hospital, who is the originator and deserves great credit for the presentation to the profession of such an admirable appliance.

SIX CASES OF ORGANIC HEART DISEASE.

BY TALBOT JONES, M.D., ST. PAUL, MINN.
Professor of Physiology and Diseases of Children in the St. Paul Medical College.

Notes of the following cases of organic heart disease were made during the past few months:

I am led to believe that valvular diseases of the heart, owing to climatic influences and the altitude of this State, are more frequently encountered here than in many other States of the Union. The high mortality from rheumatism, observed in this State, will doubtless go far toward affording at least one explanation of the prevalence of organic heart disease. But aside from those cases which we suppose directly dependent for causation upon rheumatic endocarditis, there is a large proportion of patients having valvular disease of the heart, who have no history of acute rheumatism, and the etiology must be looked for elsewhere.

I believe that indirectly the climate of this State has much to do with production of valvular disease of the heart, not due to endocarditis or syphilis. The stimulating tonic character of the atmosphere renders almost every physical exertion possible.

It would be remarkable if the inhabitants of this State, who are surrounded by such exhilarating atmosphere, should fail to be active and industrious. They perform an amount of work which would be scarcely possible to persons in living a more enervating climate.

Men's lives are passed in Minnesota under a high state of tension.

Thus it is that an increased amount of labor is thrown upon the heart, and as a natural result, the organ often becomes hypertrophied, valvular insufficiency, after a varying period of time, following as a natural sequence.

Case I. I saw this patient at the Warren House, in this city, on May 16. Mr. S. S., aged 30 years, suffered from severe acute rheumatism three years ago. He came near dying at that time. About a year ago he began to suffer from dyspnœa, cardiac oppressions, palpitations and other symptoms of heart disease.

On entering the room I saw at a glance that the patient was in the last stages of the disease. He was propped up in bed, being long since unable to sleep except in the upright position. He was suffering greatly from dyspnœa, the breath being rapid and shallow. The face wore that peculiar dusky or livid hue, which is almost pathognomonic of advanced valvular disease of the heart. The dyspnœa and cyanosis were increased by the slightest movement, even turning over in his bed causing the patient great palpitation and difficulty of breathing, and also deepening the dusky color of the face.

Physical examination indicated an enormously enlarged heart, the apex being in the seventh intercostal space and displaced laterally and to the left some four or five inches beyond its normal position. The cardiac impulse was so feeble that with the hand on the chest over the heart, the impulse could scarcely be detected. In short there was predominant dilatation. Three valves of the heart were at fault. There co-existed mitral regurgitation, aortic stenosis and tricuspid insufficiency. The first was indicated by the loud endocardial murmur heard with a maximum intensity over the apex and occurring with the first sound of the heart; the second by a systolic murmur heard at the second intercostal space just to the right of the sternum, while tricuspid regurgitation was indicated by a murmur occurring with the first sound of the heart and heard at the lower portion of the sternum.

The lower extremities and scrotum were œdematous and enormously distended. General dropsy, however, had not yet made its appearance, and the upper extremities were but slightly involved.

There was marked pulsation or undulation of the jugular veins. Digatalis relieved many of the distressing symptoms observed in this case, but the remedy was given not without hesitation, and its effects closely watched, since, in my experience, digatalis often does positive injury where there is stenosis of the aortic valves, and has, in two instances, given rise to alarming symptoms.

After stating to the patient's friends that he would not live two weeks, I was discharged from the case. I have since learned that death occurred five days after my last visit.

Case II. Lizzie G., residing at Oakdale Station, age four years, was first seen last winter. She suffered from dyspnœa, especially upon exertion, palpitation of the heart, oppression over the præcordia and other symptoms of heart disease.

Physical examination showed enlargement of the heart, predominant hypertrophy, and increased area of superficial cardiac dullness upon percussion. No

history of rheumatism. There co-existed a systolic and pre-systolic murmur heard over the apex and indicative of mitral stenosis and insufficiency. The systolic murmur could be heard distinctly at the lower angle of the left scapula. No œdema. Death took place six months after from coma and unilateral convulsions. This case was an unusually interesting one, but a full history of the case is withheld, owing to my having already reported the case in the New York Medical Record for June, 1880.

Case III. Mr. W. C. resided at Crookston, was 31 years old, and of a healthy constitution. Four years ago suffered from a severe attack of acute rheumatism, which laid him up for six months.

The cardiac trouble was noticed for the first time about eight months before he first came under my observation. This began with palpitation of the heart, dyspnœa upon exertion, irregular and increased action of the heart, pain over the præcordia, etc. These symptoms gradually increased in severity and the patient was ere long completely incapacitated for business. A chest exploration showed an enlarged heart, the apex beat being lowered and moved to the left.

The heart beat irregularly and tumultuously and the impulse against the chest walls was strong. Coincident with each ventricular systole there was observed a powerful heaving movement over the whole præcordia.

A loud endocardial murmur was heard synchronous with the ventricular systole heard with a maximum intensity over the apex. The lesion was mitral regurgitation with predominant hypertrophy which was compensatory. Perhaps in no other cardiac lesion is the benefit from digatalis more conspicuous than in simple mitral incompentency with hypertrophy, the most common of all heart troubles. This patient greatly improved under tonics, digatalis and absolute rest.

In two weeks he left for his home in Crookston. Since then I have not heard from him.

Case IV. The following case I reported at length before the Minnesota State Medical Society at its annual meeting recently held at Albert Lea:

Mr. J. V., age 33, never had rheumatism or syphilis. He was somewhat intemperate in habits. Five months before his death he was attacked and badly beaten by two ruffians. Up to the time of the assault he was not aware of any cardiac trouble. Subsequent to the assault, however, he gradually failed in strength and health, and began to suffer from dyspnoea made paroxysmally worse by physical exertion or mental emotion; from præcordial pain and a sensation of smothering, violent palpitation and other symptoms of cardiac disease. When I saw him for the first time about six weeks prior to his death, he was suffering from great dyspnœa, orthopnoea, palpitation and from a dry, annoying cough.

A chest exploration showed a greatly enlarged heart, the apex beat being in the 7th intercostal space four or five inches beyond its normal site.

A loud, mitral regurgitant murmur was heard together with a murmur discovered over the base of the heart and occurring with the second sound. When first seen the hypertrophy predominated over the dilatation, but later along the order was reversed—the former overcoming the latter as indicated by the feeble cardiac impulse. Œdema of the lower extremities now made its appearance and gradually increased in extent until it involved both extremities, and the limbs and scrotum became greatly distended. General dropsy soon supervened.

The symptoms gradually increased in severity and death took place five months subsequent to the patient's assault.

It was generally held by the friends of Mr. V. that the beating he received five months prior to his death aggravated the pre-existing heart disease, and thereby his death was hastened.

Many physicians who had seen the case, held substantially the same view.

The coroner, Dr. Davenport, being familiar with the history of the case, decided it was a proper one for investigation. On the day following the patient's death an inquest was accordingly held.

Dr. Owens and myself made the autopsy.

The heart was found enormously enlarged—weighing just twenty-two ounces upon the scales.

The normal male heart, it will be remembered, weighs from eight to ten ounces.

The endocardium was injected and bore other evidences of recent inflammation. A patch of atheroma was formed on the aortic valve. There co-existed hypertrophy and dilatation of the organ. Circumscribed pericarditis was shown by a few injected patches near the large blood-vessels. The mitral and aortic valves were in a condition which explained the murmurs heard during life. The coroner's jury rendered a verdict of " guilty," and the men engaged in the assault were subsequently brought up for preliminary examination on the charge of manslaughter. There were several interesting and important medico-legal questions which arose during the trial which I regret cannot here be given without extending this paper beyond reasonable limits.

Case V. Mr. M., of Stillwater was 40 years old and of a healthy constitution.

I was called late one night during last winter to see this patient at his hotel in this city. He was found in a paroxysm of dyspnœa and quite cyanotic. He was propped up in bed and had long been unable to sleep in the recumbent position, and was found gasping for breath.

He complained of a horrible smothering sensation and experienced a vivid sense of impending death.

This latter symptom has, in my experience, been invariably associated with aortic disease, either insufficiency or stenosis, but especially the latter. Indeed I have never noticed such a symptom occurring as a result of mitral disease alone. There was violent and irregular action of the heart. These attacks

were noticed for the first time about a year and a half ago. The paroxysms recurred at shorter intervals —each succeeding seizure being more severe than the preceding one.

The patient never had acute rheumatism or syphilis.

Physical examination showed an hypertrophied heart, the apex beat being displaced to the sixth intercostal space.

The area of superficial cardiac dullness was increased. Owing to insufficiency of the mitral valve, blood regurgitated back into the left auricle. The murmur which was synchronous with the ventricular systole, and which indicated mitral insufficiency, could be heard laterally around the chest, and distinctly so under the lower angle of the left scapula; at the base of the heart, a diastolic murmur was heard which was propagated downwards toward the ensiform cartilege.

With the stethoscope placed over the aortic valves it was noticed that the second sound of the heart was considerably weakened.

There was no œdema of the extremities. Under tonic medication and a liberal supply of rich nourishing food and with the cautious administration of digitalis, this patient improved sufficiently to justify me in allowing him in ten days to return to his home. Dr. Millard, of Stillwater, who subsequently had charge of the case, lately informed me that the patient died some six months after I last saw him.

Case VI. Mr. W., age fifty-nine years, was referred to me for treatment, by Dr. W. M. Stratton, of Granite Falls, Minnesota. He never had acute rheumatism, and is temperate in habits.

The patient's pulse was soft and irregular and not tense and rigid, which is supposed to indicate an atheromatous condition of the arteries. The cardiac lesions present in this case are almost identical with those observed as belonging to the preceding patient, the only difference being that the disease had made further progress. Mr. W. had his attention drawn to his heart for the first time about eighteen months ago. From that time onward he has suffered from the usual symptoms of cardiac disease.

There was a constant embarrassment of breathing, which now and then was made paroxysmally worse. The pulse was feeble, irregular, frequent and fluttering.

Exploration of the chest showed an enlarged heart and it was observed that the apex beat was displaced downward and laterally, its impulse being in the seventh intercostal space. There was present predominant dilatation. I am led to believe that the hypertrophy antedated the dilatation in this case, but in the onward progress of the disease the latter finally, so to speak, overrode the former, and became predominant. There co-existed mitral and aortic regurgitation. The dull, comparatively prolonged and booming quality of the first sound of the heart was materially lessened.

One of the most distressing features of this case was the patient's inability to sleep in the horizontal position. There was considerable œdema of the lower extremities, but no general dropsy.

The urgent dyspnœa and paroxysms of palpitation were much improved under the action of digatalis, tonics and rest.

The case is still under observation. In summing up it may be said:

That neither of the six patients ever suffered from syphilis and therefore the latter could not have stood in the relation of cause. This is alluded to for the reason that Professor Janeway, of New York, has been led to the conclusion that syphilis enters into the history of a large proportion of the cases of valvular disease of the heart, occurring in persons who never had rheumatic endocarditis.

That in the treatment of valvular disease of the heart it is of importance that the amount of liquids ingested should be restricted in order to reduce a redundancy of the mass of blood, thereby lessening the labor of the heart.

That the nitrite of amyl by inhalation will, in an indefinite number of cases, afford decided relief to the patient during a paroxysm of dyspnœa, but the precise indications for its use are at present unknown.

That aortic stenosis or incompetence is not always a contra-indication for the exhibition of digitalis, as is taught by many; though the relief it affords is less conspicuous in disease of these valves than in mitral disease.

A Case of Wandering Liver diagnosticated by its mobility and the ease with which the tumor could be made to glide into the right hypochondriac space, is reported in a Hungarian medical journal. The disorder arose suddenly in a woman, aged 55, in consequence of lifting a heavy load, and was at first accompanied by severe pains. A wedge shaped pad was applied and secured by a bandage with some relief.

Apomorphia in doses of one-tenth grain hypodermically, in the experience of Mr. James Allen, relieves hysterical coma, even though it be of several days' duration, so the patient sits up and walks in a few minutes. How much does the piercing through the skin and subcutaneous tissues of the hypodermic needle have to do with this result, and how much does the apomorphia?

The General Practitioner's Province, according to Dr. A. Jacobi, of New York, will be in future the male half of mankind, and very old women and very young children, provided he will keep his hands off their eyes, ears, nervous system, lungs, heart, urinary organs, venereal diseases, nose, larynx, skin, hair and corns.

THE PATHOLOGY OF PROGRESSIVE MUSCULAR ATROPHY.

BY PROF. WM. E. QUINE.

A Lecture delivered in the Mercy Hospital, April 22, 1880.

In the last lecture I attempted to describe the history and course of progressive muscular atrophy, so that now we are ready to inquire into its nature and mode of development. This phase of the subject is by no means as simple as it may appear to be, for considerable diversity of opinion exists, not only in relation to the nature of the lesions, but also, and chiefly, in relation to the order of their occurrence. Before entering upon the consideration of mooted questions it seems to me proper that we first give attention to the anatomico-physiological elements out of which an intelligent opinion is to be formed. You are aware the most prominent and typical feature of the disease is the one that furnishes basis for its commonly accepted name: progressive muscular atrophy. The mode or modes by which the muscles waste away, and the antecedent conditions which originate the wasting process, are deserving of the closest study. The muscles are found atrophied in different degrees, from a trivial reduction in bulk to the destruction of the last vestige of their contractile tissue. They first become pale, and streaks of fat may be seen between the fibers. In exceptional cases and especially when the lower extremities are affected (Roberts) the fatty infiltration may preponderate over the disappearance of the fibers, so that although the volume of the muscle is fully preserved its functional power is more or less impaired. The destructive process makes different degrees of progress in different parts. A withered muscle may be sandwiched in between two well nourished ones, and even the parts of a single muscle exhibit different degrees of change. Here you see a few strands of contractile tissue displaced by fat, and all around them tissue presenting a normal appearance. Then a small segment is found to retain its normal appearance and vigor whi e the remainder of the muscle has been transformed into an inert filamentous mass, or fibro-cellular band, whose relation to the muscles is to be recognized only by its points of attachment. No matter how the atrophic process is initiated, fatty degeneration constitutes an essential step in the process, and the degeneration, and the final disappearance of the oil globules, may go on till nothing is left but the cellular framework of the muscle. To guard against erroneous conclusions in this matter, affected muscles have often been examined during life by harpooning a few fibers, here and there, as is done in cases of suspected trichinosis. Some difference of opinion exists as to the precise significance and order of development of these remarkable lesions. Many writers of authority, such as Duchenne, Cruveilhier, Lebert, Virchow, Valentiner, Wachsmuth and others, regard it as fatty degeneration, pure and simple. On the other hand Robin has never seen fatty metamorphosis while other writers, of equal prominence, like Foerster, Friedberg, Schueppel and Hayem, regard it as an inflammation, a myositis, primarily, which finally results in fatty transformation. The exhaustive researches of Friedreich, tend, strongly, to confirm the latter view. The wasting it is said, occurs partly by simple emaciation, and partly by fatty and waxy degeneration. The connective tissue elements are rapidly multiplied, and the final result is cirrhosis of the muscle; so that in extreme cases, only fibrous chords, dotted here and there with relics of contractile tissue, are to be seen. This is all that need be said on the subject of the muscular lesions, but this constitutes but a small part of the pathology of the disease. Important changes, of great variety in nature, location and extent, have been found in the nervous system, and an attentive consideration of them is necessary in order to determine whether the muscular lesion be primary, or whether it be dependent on some preëxisting disease of the cerebro-spinal, or sympathetic nervous system. As we have just intimated the condition of the nervous system has been found to be far from uniform. The results of thirty-four cases have been tabulated by Bergmann. (Reynold's System, Am. Ed. Vol. I., p. 791.) Of sixteen in which the cord and nerves were pronounced healthy, only six had been examined microscopically. In six other cases the cord was found healthy, but some of the anterior roots of the spinal nerves were found atrophied. In one case the only disease found was in the medulla. In six cases the cord was found by microscopical examination to be diseased, although it appeared normal to the naked eye. Lastly, in seven cases the cord appeared to the unaided senses palpably softened and disorganized. In this connection I may repeat what I have often said before, and what you have had frequent occasion to remark, that the morbid anatomy of the nervous system is one of the most difficult studies in pathology. Knowledge is yet in its infancy here. Unusual skill in the use of the microscope, in the preparation and mounting of specimens, intimate acquaintance with the normal structure of the parts, and special and prolonged training in this particular field of research, being necessary to entitle one's conclusions to much confidence or respect. The fact that no changes were found in the cord and nerves in numerous instances, is not proof that changes did not exist. The positive results of comparatively recent investigations, make it appear probable that if in cases in which negative results only had been obtained, the cord and nerves had been subjected to the scrutiny of such experts as Luys, Lockhart Clarke, Gull, and others, lesions would have been found. Of all the changes that have been noticed, none, perhaps, has occurred oftener than atrophy of the anterior roots of the spinal nerves. It sometimes exists alone, but usually is attended with some other disease. The frequency with which it has been found, taken in

connection with the influence which the ganglion or trophic cells in the anterior cornua of the cord, are known to exert upon nutritive processes in muscular and other deep structures, is, to say the least, suggestive of the assumption that, after all, the primary lesion of progressive muscular atrophy may be found in the nervous system. But this is not all. In accordance with this suspicion, not only may atrophy of the anterior roots originate the muscular wasting, but any disease which interferes with the production of trophic influence by destroying the cells, or any disease which destroys or incapacitates the lines by which it is transmitted, may have the same effect. Indeed these things may not only be so, but they are so. To be more explicit, however, Cruveilhier, who was one of the first to determine the existence of atrophy of the anterior roots, found it to have occurred in two of his cases. In them the brain, cord, and posterior roots were normal, but the anterior were withered from their emergence from the cord to their point of junction with the posterior roots. The muscular branches proceeding from the motor nerve trunks were also atrophied, and the nerves ramifying in the ball of the thumb were wasted almost to the extent of obliteration. About twenty-five or thirty cases are recorded by some of the most competent neuro-pathologists living, in which atrophy of the anterior roots, either alone or co-existing with other lesions, was found. It is not an unvarying condition, however. There are nineteen cases recorded (Eulenburg) by observers equally competent with those just referred to, in which particular search was made for it, and it did not exist. It is a common lesion, therefore, but not at all necessary to the occurrence of progressive muscular atrophy. To inquire further, the cord has been found diseased in numerous instances. Valentiner found softening of the cord in the neighborhood of the three lower cervical and the uppermost dorsal nerves. Schneevogt found in addition to certain lesions of the sympathetic, softening of the cord from the fifth cervical to the second dorsal nerves. Fromman found softening, chiefly of the anterior columns of white matter, from the medulla downward.

Luys found the gray substances of the cervical enlargement hyperæmic, the ganglion (trophic) cells of the anterior cornua, chiefly of the left cornu, mostly absent, and their places occupied by granular masses, and the left anterior roots atrophied. The muscular atrophy was chiefly on the left side.

Lockhart Clark describes six cases, in all of which the gray substance of the cord was diseased,—inflammatory softening or hardening, — and the ganglion cells implicated, but in some of them the white matter and the anterior roots were also involved.

Gull found dilation of the central canal in the cervical region of the cord and atrophy of the gray matter to the extent of nothing remaining but a thin membranous layer surrounding the cavity. Schueppel describes a similar case, and Grimm, also, there being, however, in Grimm's case, in addition to the dilated canal and the atrophied gray substance a medullary sarcoma in the lower cervical region, and fatty degeneration of the anterior roots.

Hayem found induration of the anterior horns of gray matter. For these details, and many others, I am indebted to Eulenburg's masterly exposition of the subject. They have reference, you will observe, chiefly to the condition of the gray columns. But several cases are recorded in which nothing but the white columns was involved, or, at least, disease preponderated in them; others are described in which the posterior cornua, still others in which the posterior roots, and others again in which the sensory ganglia, were prominently or exclusively diseased. In all there are thirty-six or eight cases recorded in which some part of the cord was diseased, but opposed to them are fifteen or sixteen recorded cases in which no such lesion was discoverable. It must, therefore, be regarded as very common, but not as indispensable to the occurrence of muscular atrophy. In one of Trousseau's cases atrophy of the anterior roots of the cervical and dorsal nerves, mostly of the former, and chiefly on the left side, was found. The nerves which contributed to the formation of the the brachial plexus were reduced to extremely fine threads. The circumflux, median, ulnar, and radial nerves, were also wasted. In this case the upper extremities were almost equally involved, and the thoracic muscles were badly affected. The changes in the cord and nerve roots consist for the most part of degenerative atrophy and final disappearance of nerve cells and fibres. But the fact that many well authenticated cases are described in which no such lesions existed, makes it necessary for us to inquire into the role which other parts of the nervous system may play in the causation of the principal lesion of this interesting and complex disease. We have already learned that disease of the centres involving the ganglion cells which preside, in some way, over the nutrition of muscular and other deep structures, may originate an atrophy in muscles, which may, in its turn, prove progressive. The same must be true of the nerves which conduct trophic impulses from the ganglion cells to these structures. If they be diseased or incapacitated in any way, and their conducting power lost, nutrition of muscles must of necessity suffer. These considerations are supported by numerous facts which have long been before the profession. Indeed in most cases of progressive muscular atrophy, the spinal nerves have been found in a more or less advanced state of degenerative atrophy and sclerosis. In some cases these changes were confined to the periphery, but in others they appeared in nerve trunks and even in plexuses. Here I may refer to a singular result of one of Brown-Sequard's experiments. Division of a sciatic nerve was followed by

atrophy of the uninjured limb, and no trophic changes in the injured one. Let me refer, too, to the well known fact that in some cases of neuralgia (neuritis?) muscular atrophy occurs with remarkable rapidity. Landouzy, for example, mentions a case of sciatica in which it was quite noticeable fourteen days after the first appearance of pain. True, in these cases the atrophy is not always proportionate to the violence of the pain, but the fact appears nevertheless, that it may be caused by disease of a nerve and independently of the disuse which such disease may occasion. The sciatic is perhaps the most common seat of neuritis, but Lasegue reports a case of cubital neuritis in which the patient presented an atrophy of the muscles of the thenar and hypothenar eminences and of the inner aspect of the forearm. Whenever a motor nerve is severed muscular atrophy ensues. It is considered generally as the atrophy of disuse, sufficient attention not being given, it seems to me, to the lines of trophic action. It must be admitted, however, that high degrees of muscular atrophy occur only when a mixed nerve like the sciatic is very severely injured or diseased. In such peripheral paralyses vaso-motor and trophic disturbances are never absent. Passive hyperæmia, lowered temperature, œdema, discoloration, cutaneous eruptions or atrophy, disposition to the occurrence of bed sores from slight pressure, deformed nails, disappearance of hair (Mitchell) or increased growth of it (Schiefferdecker), atrophy of bones, deformity of joints (Mitchell, Remak, Benedict), enlargement of lymphatics (Mantegazza,) and hyperplasia of connective tissue, are lesions, which, in addition to varying degrees of muscular atrophy, are well known to occur under such circumstances. It does not appear to be a violent assumption, therefore, that which takes for granted the possibility of a progressive muscular atrophy originating in this way, but it is only in a question of possibility. But many cases are recorded in which no peripheral paralysis existed, and it must be regarded as a non-essential element. We may be able to find, however, that a more intimate relationship exists between disease of the nerve trunks and the spinal cord than at first appears. You are aware that mechanical or chemical injury of a nerve, may be the starting point of a myelitis, the resulting inflammation ascending to the cord probably by way of the connective tissue of the nerves, and causing primary meningitis, and then traveling up and down the cord chiefly in the gray matter. Simple section of a nerve has given rise to these results (Hayem) and been followed by wide-spread trophic disturbances. Charcot cites a case in which amputation of the left thigh was followed by paralysis of the bladder and the right leg.

In the light of these observations it is not difficult to understand how disease may originate in a nerve, and result in atrophy of it, and at the same time give rise to more or less extensive disease of the cord. Conversely it is not difficult to understand how disease originating in the cord, may give rise to destructive changes in the tributary nerves In either case, progressive muscular atrophy may ensue. These considerations, although unquestionably based on facts, must, like others that have been placed before you, be viewed in the light of possibilities. The succession of events may be such as has been described, or the disease under consideration may be developed in other ways. Althaus and Jaccoud seem to regard it as primarily a disease of the sympathetic system, and this notwithstanding that in two of Jaccoud's cases atrophy of the anterior roots of the cervical and upper dorsal nerves was found. The improbabilities of the assumption vanish under a closer examination of the facts. In these cases fatty fibrous degeneration of advanced grade was found in the sympathetic. The trunk of the cervical sympathetic had been converted into a fibrous cord, the upper ganglia showed hyperplasia of connective tissue, the rami-communicantes were atrophied, and likewise the anterior roots of the spinal nerves. Here, then, Jaccond's opinion that the disease originated in the sympathetic and extended by way of the rami-communicantes to the cord, causing the most characteristic of all the nervous lesions, and developing the most typical atrophy of muscles, must be admitted to be extremely probable. Changes of a similar nature were observed in the sympathetic by Swarzenski and Dumenil. Schnevoght, too, found an alteration of the splanchnic nerves. Implication of the sympathetic to any prominent degree must be rare, however, if we are to judge from the usual absence of visceral derangement, and the usual immunity of unstriped muscular fibre from destructive changes. In all recorded cases wherein the examination was carefully made, lesions of the sympathetic were found five times and absent fourteen times. They are not essential, and when they do exist they impart special and peculiar symptoms, pupillary and vascular changes, etc., to the cases. We have already presented three or four views of the mode of eausation of progressive muscular atrophy. These may all be regarded as variations of the neurotic or trophic theory, for they all assume or demonstrate that sooner or later, directly or circuitously, trophic centres or fibres were destroyed. There is another view that we have not touched upon at all, however, or at least not with any degree of prominence. This is the view which holds that the disease begins in the muscles; that the muscles are primarily affected, and that if the nervous system is at all implicated it is secondarily, either through extension of the morbid process from the muscles, or from the disease which results from the destruction of the muscles. As to the precise nature of this supposed primary disease of the muscles there is some difference of opinion. Aran, one of the earliest writers on the subject, regarded it as a primary

degeneration without previous involvement of nerves. Duchenne, Friedberg, Hasse, Meryon, Roberts and others take substantially the same view. Friedreich who, by his admirable investigations has contributed so much to our knowledge of the subject, is very emphatically of the opinion that the disease begins as a myositis, or inflammation of the muscles; and he describes with great minuteness the various steps by which the condition of extreme atrophy is reached. His writings have justly exerted a profound influence upon the views and teachings of the day. He regards the nervous lesions which are commonly associated with the myositis partly as a result of the extension of the inflammatory process to the periphery of the intra-muscular nerves, and thence to the cord, and partly as a nervous atrophy consequent upon suspension of the function of the muscles. In regard to the former assumption we have already seen that an ascending neuritis was one of the ways by which diseases of the cord originated; and in regard to the latter it is only necessary to refer to the fact that in cases of amputation, and other sections of nerves, the process of atrophy is apt to occur in the divided nerve and to extend even into the cord. So when an eye is lost, either from mechanical injury or disease, the optic nerve is invariably found atrophied as far as the commissure. There is nothing intrinsically improbable in Friedreich's views, therefore. Indeed they are not only extremely probable, but to a large extent the accepted views of the day. It seems to me that an attentive consideration of the literature of the subject will make it appear very plain that the disease may originate in any of the ways that have been described. The acceptance of one view to the exclusion of the others would make it necessary to ignore well established facts. In relation to the central origin of progressive atrophy, nothing is more common than to see it exemplified in cases of lateral sclerosis and poliomyelitis. Here, I may say that Charcot, one of our most authoritative writers, teaches that what is considered progressive muscular atrophy really comprehends two diseases: In one, myelitis of the anterior horns is the characteristic lesion, in the other, lateral sclerosis and secondary poliomyelitis. In the second form paresis or paralysis, then muscular atrophy and contracture, and finally bulbar paralysis are the typical developments. Nothing is better attested, I say, than that muscular atrophy may result from central lesion. In these cases, however, paralysis precedes atrophy, and the destructive feature of the disease under consideration is that the atrophy precedes, or at least is equal in degree to the paralysis. Still, in these very cases, the fact is demonstrated that progressive muscular atrophy may occur as a result of spinal disease, and quite independently of any morbid tendency in the muscles themselves. Moreover, in the same class of cases, atrophy of the anterior roots of the spinal nerves, and even of the nerve trunks, is known to occur commonly. We have then all the essential elements of a progressive muscular atrophy. Now if diseases of the cord may originate the affection at all, it is plainly an unimportant matter what the nature of the central disorder may be. It may be medullary sarcoma, or the remnants of an inflammation, anything that disturbs the integrity of trophic centres and fibres, or the conducting nerve trunks. Whether disease extends from the cord to the sympathetic ganglia, or from the ganglia to the cord, is, in the light of what we know and what seems probable concerning trophic action, a comparatively unimportant matter In either case the trophic apparatus is affected before the muscles are. Although this view is supported by such distinguished pathologists as Clarke, Charcot, Hammond, and others of almost equal celebrity, we are unable to see how it can be established it relation to all cases. As we have already shown the mere co-existence of spinal and muscular atrophy throws no light whatever upon the question of priority of occurrence. If the disease always began in the cord we would expect to find groups of muscles regularly and simultaneously affected, and certainly such muscles as are innervated by a common nerve trunk. We would also expect to find them affected in about an equal degree. This is not the case at all. Isolated muscles are destroyed and others animated by the same nerve are unaffected. Parts of a single muscle are destroyed, and parts are left intact. Muscles differing widely in their sources of innervation are involved at the same time, here and there in the trunk or in this or that extremity. This certainly is not in accord with our knowledge of the physiological anatomy of the cord, and the course of morbid processes in it, and it strengthens the suspicion, which through the researches of Friedreich has been made a fact, that the muscles themselves are in many cases primarily at fault. From what has been said you have probably inferred, as I intended you should do, that progressive muscular atrophy may begin in muscles primarily, as an atrophy or as an inflammation. If it begins as an atrophy, the disease resulting from the muscular incapacity may give rise, as in the case of an amputated limb, or an eye that has lost its function, to atrophy of the supplying nerve and nerve centre. If it begins as an inflammation the inflammatory process may involve the intra-muscular nerve twigs and ascending, cause disease of the cord. You have inferred, too, that the morbid action may be communicated to the cord in other ways; notably by extension of an inflammation from sympathetic ganglia or nerves to the spinal centres. And lastly you have seen that primary disease of spinal cord or nerves may result in a similar array of manifestation. We feel warranted in advancing the opinion that the many and widely dissimilar cases that have been reported as progessive muscular atrophy, and properly so, have had these different modes of origin, and we are unable to see how this symptom-

atology and morbid anatomy can afford a basis for an opinion of any one exclusive mode of development. Permit me now to make a few remarks on other phases of our subject, prognosis and treatment. The prognosis is always grave. The disease may be arrested but the atrophied parts are irremediably destroyed. There is no restoration. There is always more or less crippling. No man can tell whether permanent arrest will occur or not. The rule is progression, unsteady, halting progression. Death may result from starvation, from failure of the respiratory muscles, from some accident in deglutition, or from some intercurrent disease which is usually, but not necessarily, pulmonary. Those cases are the most serious in which hereditary tendency may be presumed to be very active. When the muscles of the trunk are the first affected, progression is comparatively slow, and arrest is more likely to occur than when the muscles of the extremities are originally destroyed. After these remarks the introduction of the subject of therapeutics must be anything but encouraging. Still Duchenne speaks hopefully of the influence of faradization, not only in arresting the atrophic process, but also in restoring the nutrition of the affected muscles before the destructive process has made much progress. If electric excitability is lost there is no probability of benefit from treatment. Meryon mentions arsenic favorably, Hiltzlar extols sulphur baths, Bazire suggests a general tonic course, others eulogize baths, massage, gymnastics, but meantime the malady pursues its erratic course in much the same manner as it would, if therapeutics had never been invented.

CORRESPONDENCE.

New York, July 1, 1880.

Now that the enthusiasm, which is always awakened by such a large assemblage as that of the American Medical Association, has somewhat subsided, and the proceedings are more critically received, it becomes evident that in several respects there is room for future improvement. If topics of importance and interest were to be brought up at the general session of the Association, and intelligently discussed by persons who had made some preparation for an expression of opinion; if the Presidents of the various sections were to present a review of the work done during the past year in their departments, instead of taking the opportunity to urge some pet theory; if the arrangement of proceedings of the sections was such that kindred topics could be considered at one meeting, thereby securing some unity of thought, in place of the present startling variety; if the papers could be referred to a committee, which by a judicious selection, could eliminate sophomoric effusions on the nature of inflammation, alcohol in fever, etc., and non-committal discussions regarding superanuated theories; and useless historical lectures, thus saving the members many wearisome hours, the result might be an increased respect for the Association as a scientific body, and an increase of power in the Association as an aid to medical progress. A clear summary of the results of personal observation or experiment upon a practical subject, would seem to be the natural character of a scientific paper, read before a body of experts. How many of the papers presented would fulfil these conditions? A comparison of known facts followed by deductions from those facts, and their application, should be presented by those who participate in debate; not rambling remarks which indicate either a total absence of opinion or inveterate prejudices. The sooner that steps are taken to secure the needed reforms in the management of the Association, the sooner will it attain that position as the exponent of the medical scientific advance in America, which it deserves to hold. It would be a source of profit to its members and the profession at large.

The catalogues of the three chief medical schools of the city have recently been published; and they furnish indications that the defects in medical education are becoming apparent even to medical faculties. The College of Physicians and Surgeons, and Bellevue Hospital Medical College, both announce an increase of ten weeks in the length of the winter term, and a number of new clinics at their buildings or the various hospitals of the city. The three years' course is, however, only recommended instead of being required, and the system of written examinations has been instituted in the first named institution only. The University Medical School adheres to the inefficient short winter term, and makes no allusion to any future changes.

It is a favorable sign that all these catalogues notice the advantages for clinical instruction in this ctty. This form of instruction if rightly pursued is of incalculable importance, as every one knows. But few seem to realize the fact that the advantages which New York offers in this direction are far greater than those of any city of this country, and equal to many in Europe. In fact a recent comparison of the number of hospitals here, with those in Paris, is decidedly in our favor. If the material were properly improved, students would no longer be obliged to go abroad for special study. It has long been known that if classes limited in number to six persons, which should accompany the attending physicians and surgeons in their daily rounds in the hospitals, could be formed, we might hope to compete even with Vienna for the foremost position in clinical instruction. Such classes have at last been organized, and will doubtless increase in popularity and number, as their advantages are appreciated. Private clinics they are to be called, and the students in them will have an opportunity to examine cases carefully and make diagnoses, an opportunity not hitherto afforded in public clinics. This promises much in the line of progress in medical education.

The very hot weather of the past two weeks is producing its usual effect in the increase of summer complaint. At Bellevue hospital cases of cholera morbus have been very numerous and the treatment pursued seems to be efficacious in most cases. The patients are usually purged with castor oil and then put upon the use of the following mixture:

℞. Tinct. Opii,
Tinct. Capsici,
Spts. Camphoræ ää fl. ℥ j.
Chloroformi fl. ℥ iij.
Alcoholis ad. fl. ℥ v.
M. Sig. Dose 20 to 40 minims.

In mild cases bismuth and paregoric are used with good results. A milk diet seems to agree best with some patients; others do as well upon beef extracts.

Many severe cases of sunstroke have been brought in during the past few days. They are mostly of the cardiac variety (of Reynolds); and the chief indication, in addition to the reduction of temperature by cold douches and ice to the head, is to support the heart's action. This is done by free hypodermics of whiskey and ammonia and in the worst cases by the application of the electric current to the pneumogastric. This treatment is usually successful.

The following case has excited some interest among the staff of the hospital, illustrating as it does the great efficacy of transfusion of blood in extreme cases.

Empyema, Hemorrhage, Transfusion of Blood.—M. J., female, age 26, married, was admitted to the hospital April 21, and being under the influence of alcohol was placed in the cells. Four days after having recovered from the effects of the debauch, the patient was transferred to the wards and gave the following history. She had been a hard drinker, up till last February, when she had an attack of gastritis, was unable to retain food on the stomach, and had to be nourished by the rectum. This attack lasted one month, and in the middle of March she was well enough to take ordinary nourishment without vomiting. Soon after, she began to suffer with pain in her left side, shortness of breath and other symptoms of pleurisy with effusion. Before her admission to the hospital she had been aspirated twice; the first time, sixty ounces of fluid were drawn from the left side; the second time the amount was less but the fluid was purulent.

On admission the patient's general health was good. Pulse, 102; temperature, 99°; Resp. 32. Physical examination revealed the presence of fluid in the left side, and the hypodermic needle drew out pus.

April 27th. The patient was aspirated and two pints of purulent fluid were drawn off. The next day an operation was decided upon, and a free drainage was secured by making two incisions, one in the fourth intercostal space, the second in the sixth intercostal space just anterior to the axillary line, and inserting a drainage tube. About a pint of pus was evacuated during the operation. The hemorrhage did not appear to be excessive, and no difficulty was encountered in completing the operation. There was some cellular emphysema about the wounds, which was overcome by pressure, and the wounds were dressed with oakum and balsam of Peru, a large drainage tube having been inserted through them. Two hours after the operation the pulse was 140; temperature, 102°; respiration, 36. At 7:30 P. M., four hours after the operation the dressings were found to be soaked with blood and it was noticed that blood came slowly through the lower end of the drainage tube. The dressings were removed and upon the supposition that the blood came from a cut intercostal vessel, lint was packed about the tube. The oozing continued, however, and both compression with lint soaked in a saturated solution of tannic acid and pressure with other contrivances, failed to arrest the hemorrhage. The patient began to show signs of weakness and hypodermics of whiskey, digitalis and sol. Magend. were given. Fluid extract of ergot was also administered hypodermically, but did not stop the bleeding. The patient became very thirsty but vomited everything given her to drink: she was alternately cold and hot. At 3 A. M. a solution of tannic acid was injected into the pleural cavity and as this seemed to control the hemorrhage for a time, it was repeated at 6 A. M. By this time the patient was much exhausted but was pretty well under the influence of sol. Magend. which had been given freely all night. The pulse was 140; temperature, 102; respiration, 12–16. At 10 A. M. she was very feeble and sinking rapidly. It was therefore decided to perform transfusion of blood as a last resort. The hemorrhage could not be controlled permanently as it probably came from vessels in old adhesions in the pleura, no wound of the lung being found. The attending physician proceeded at once to operate, using Aveling's apparatus. The left median-basilic vein was opened and the small canula introduced. The other canula was placed in the median vein of a healthy man, and the tubes and bulb filled with a saline solution being attached, one ounce of the saline solution and three ounces of blood were injected into the patient's vein. The respiration, which had been averaging 14 per minute, jumped at once to 23. The pulse became stronger, and the patient, who had been partially comatose before the operation, recovered consciousness, became restless and able to talk. She rallied in a remarkable manner, the pulse continuing fuller and stronger and the respirations regular. The hemorrhage ceased entirely. She retained three ounces of milk in the rectum at noon, and remained pretty quiet throughout the afternoon, though any unusual sound caused nervous startings. During the night nutritive enemata of milk and a solution of dried bullock's blood were retained. The patient was somewhat restless and her mind wandered. April 30. The patient is very feeble and easily excited when more than one person is near, otherwise quiet, and retains food by the rectum. She is also able to take milk

and whiskey by the mouth, but vomits occasionally. In the afternoon she had a slight chill, after which the chest was washed out for the first time with a solution of carbolic acid. Pulse A. M., 120; P. M., 160. Temperature, A. M., 99½°; P. M., 102°.

May 1. Patient seems better to-day and is able to retain food on her stomach. She takes milk, beef tea, eggs, and whiskey. She continues excitable. The cavity was washed out twice with carbolic acid solution. There was no rise of temperature. Pulse is full and strong and less rapid.

May 3. Patient much stronger; retains food. The discharge from the cavity is quite fetid, nowithstanding the injection of carbolic acid solution twice daily. The washings to-day brought away what appeared to be some freshly formed blood clots. There has been no return of the hemorrhage, but the discharge is slightly bloody. Temperature A. M., 101°; P. M., 102°.

May 5. Patient continues to increase in strength and has not vomited her food. The discharge is purulent and offensive, but no longer bloody. The cavity is washed out three times daily with carbolic acid solution and Labarraque's solution. Temperature, A. M., 100°; P. M., 102°.

May 15. Patient has continued about the same for the past ten days. She retains food well, and feels tolerably strong. Has been given tr. ferri. chlor. gtt. xx t.i.d. The cavity discharges an offensive pus, and is washed out three times daily. Temperature is now about normal in the morning, elevated two degrees in the evening.

May 18. Patient has had an attack of diarrhœa which has weakened her greatly, but was checked by opium and bismuth. A bed-sore which has formed on her back gives her much discomfort. She has been put upon a pill containing ferri redac. gr. ¼, ext. nuc. vom. gr. 1-6, quin. sulph., gr. ij. t.i.d.

May 22. General condition seems to be improved, but she has had a distinct chill, followed by fever in the evening, for two days. This was checked to-day by quin. grs. xx, given hypodermically.

May 28. There have been no more chills, but the diarrhœa has returned and is exhausting the patient. It yielded finally to paregoric and bismuth. The cavity continues to discharge purulent and offensive matter. The hectic fever persists.

June 10. Patient has been failing gradually for some days. This evening œdema of the lungs set in and refused to yield to the accustomed remedies. The patient died at 4 A. M., June 11. No autopsy could be obtained.

A CASE of "counter prescribing" on the part of a druggist of this city, has just occurred, wherein nearly fatal results occurred. A lady asked the apothecary's clerk for a dose of chloral hydrate. The young man gave her two hundred and forty grains. She took the dose and was barely rescued from death by the efforts of a physician.

REVIEWS.

"THE THERAPEUTICS OF GYNECOLOGY AND OBSTETRICS." Edited by Wm. B. Atkinson.

As a rèsumè of the doctrines of gynecology this book is a compend of exploded theories, obsolete pathology and pernicious treatment long since abandoned. The editor himself says, in the preface, "that the great activity manifested, of late years, in the department of gynecology, renders it almost impossible for a physician in large general practice to follow the rapid advance." Had the author adhered to this opinion, we might have accepted it as an apology of his apparent ignorance of Emmet's great discovery, which has so completely revolutionized this department of medical science. But after grouping various symptoms, which we are able to differentiate, under the head of *change of life*, as if it were a disease *sui generis*, he proceeds to tell us "that the most enlightened school of modern gynecologists discountenances making gynecology a specialty, either in diagnosis or treatment," in confirmation of which view he quotes the authority of Dr. Robert Barnes. Had the author, or Dr. Barnes, under the pressure of their large general practice, succeeded in keeping pace with the advance of gynecology, we should give more weight to their opinion on the subject of specialties. It is a fact not yet fully recognized, that out of our American Nazareth have come the greatest gynecologists of the world. Ignorant of all this, our author has adopted the obsolete views both in diagnosis and treatment of foreign gynecologists who, in their plodding way, still continue to discuss the varieties of "ulcers of the os," and appear to know nothing of the hot water treatment of uterine disease. The pernicious tendency of this book is that it remands woman to the torture of that cruel system of cauterization, the ill effects of which such men as Emmet and Thomas are laboring to counteract and undo. F.

WOOD'S LIBRARY: THE VENEREAL DISEASES, including stricture of the male urethra, by E. L. Keyes, A.M. M.D., Professor of Dermatology, Bellevue Hospital Medical College, New York; William Wood & Co.; W. T. Keener, Chicago. 1880.

The general tenor of the doctrines laid down in this book are already before the profession in various essays, and especially in the admirable book which appeared several years ago from the author's pen and that of Dr. Van Buren on Genito-Urinary Diseases with Syphilis. On the treatment of syphilis the views expressed in this work have not been modified, except that the tonic dose of the specific has been somewhat decreased, and the duration of treatment has been somewhat prolonged. The radical distinctions between chancre and chancroid are stoutly maintained and the dependence of chancroid upon any stage of syphilis is unqualifiedly denied. The prevention of syphilis by excising the chancroid is discredited. A protest is raised against that class of urethral pathologists who, in the author's partizan

language, "seem to claim that every natural undulation in the tissues of the pendulous urethra is a stricture, fit for cutting, and that all the ills of the genito-urinary passages may be accounted for by the existence of these undulations and are usually made to disappear when the latter are cut." The leader of this school is only credited with having contributed some capital instruments and a broader understanding of the tolerance and of the possible capacity of the urethra. The Review is mainly in sympathy with the author's views, but is not of the opinion that the above expression fairly represents the genius and the worth of Dr. Otis. Extreme as his views may be, the author, it would seem, endeavors for an unknown reason to give to a most powerful and able rival the questionable appearance, merely, of an honest mechanic of narrow ideas. Dr. Otis never seemed to claim that every natural undulation in the pendulous urethra ought to be cut, or that having been cut, all the ills of the genito-urinary passages would disappear. Excepting this seeming spirit of rivalry, which appears to have a reckless disregard for consequences, the book as a whole, is worthy of serious consideration. It represents the general subject of the venereal diseases in the usual terse, forcible style of the author, in a form which, though not complete, is yet sufficiently so for the practical requirements of every-day experience. It may sustain, though it does not materially elevate, the author's excellent reputation as a teacher and writer.

Wood's Library; A Treatise on Foreign Bodies in Surgical Practice, by Alfred Poulet, M.D., adjutant-surgeon major, inspector of the school for Military Medicine, of Val-de-Grace. Complete in two volumes, New York: William Wood & Co.; W. T. Keener, Chicago.

The standard works on surgery have generally devoted a chapter varying in fulness and in value to this subject. Hitherto no other work treating exclusively on foreign bodies in surgery, has made its appearance. The term, "foreign body," has been variably defined. According to some authors it involves the study of parturition, poisons, changes in the fluids, in a word, all chemical or vital modifications of the organism. The author says: "By foreign bodies in surgery, are meant abnormal solid or fluid substances which have entered the body from without, which have penetrated the organism or become fixed to its surface, and which by their presence or mechanical action, modify the conditions of existence of the parts." He does not regard splinters of bone or dead bone as foreign bodies, in the strict sense of the term, but, with a seeming inconsistency treats them as such. Foreign bodies are classified into three grand divisions; I. Foreign bodies introduced through the natural passages. II. Foreign bodies entering by effraction. III. Foreign bodies fixed to the surface of the parts. Some curious facts are related in regard to the fate of foreign bodies in the intestines, and the complications which they may produce. A girl of twenty, surprised by a bold lover, took to flight, holding the blade of a knife between her teeth. She fell to the ground, the blade, seven centimeters long, snapped, and was swallowed. On the fourth day a copious passage contained the blade, blackened and rusted. The color of the stools showed that the intestinal hemorrhage had been very slight. In another case, a Spanish officer aged forty-one swallowed a fork, which appeared in the stools fifteen months later without any noteworthy symptoms. The toleration of the vermiform appendix to foreign bodies is illustrated by an autopsy upon a man who died at the age of eighty-eight years. The appendix contained one hundred and twenty-two grains of leaden shot. The man, who was a great lover of hunting, had never given evidence of any lesion of this organ. These two volumes have been written in an agreeable and forcible style, and cannot prove otherwise than useful as books of reference for students and practitioners.

The Practitioners' Reference Book. By Richard J. Dunglison, A.M., M.D. Second edition, revised and enlarged. Philadelphia: Lindsay and Blakiston; Jansen, McClurg & Co., Chicago. $3.50.

The first edition was published three years ago. The work may be described in a sentence. It is preeminently a book of practical hints. The second edition is about one-half larger than the first. In point of accuracy and excellence it fully sustains the author's reputation. The following chapters which are mentioned in the author's preface as among the most useful in this edition will give an idea of the general character and scope of the work: How to write metric prescriptions. Directions as to the use of the hypodermic syringe in diseases to which it is applicable. How to use a galvanic battery in medicine and surgery. How to apply trusses to herniæ. How to use the clinical thermometer. How to prepare stained sections of animal tissues. Reference table of size, weight and specific gravity of all the organs, etc., in the body. Celebrated prescriptions or remedies. Therapeutics of the bowel affections of children. Diagnostic tables of acute pulmonary diseases. Diagnostic tables of diseases of larynx and naso-pharynx. Diagnostic syllabus of diseases of the groin. Ready reference table of antidotes on a new plan. Rules of medical etiquette.

The Bill to Regulate the Practice of Medicine has been passed by the New York Legislature, and New York now has a medical practice act similar to that of Illinois. The headquarters of the new board of health will be at the capitol of the State.

The Medical and Surgical Reporter, June 26, 1880, contains twenty-two pages of index, and four pages of reading matter. This is a demonstrative sort of economy which is really amusing.

BOOKS AND PAMPHLETS.

Richard J. Dunglison, A.M., M. D. The Practitoner's Reference Book. Second edition, revised and enlarged. Philadelphia: Lindsay and Blakiston; Jansen, McClurg & Co., Chicago, 1880.

E. W. Lee, M.D., and Chr. Fenger, M.D. Select Topics of Modern Surgery. Illustrated by cases from the hospital service and private practice of Drs. Lee and Fenger Read before the West Chicago Medical Society. Reported from the Chicago Medical Journal and Examiner, May, 1880.

Geo. F. French, M.D., Portland Maine. The Respiratory Brace: A new Appliance devised for the Relief of Orthopnœa. Reprinted from the Boston Medical and Surgical Journal, May 3, 1877.

Trinity Medical School. Annual Announcement of Trinity Medical School, Toronto, Ontario. Session 1880–81.

F. C. Hotz, M.D., Chicago. The Indication for an early Trepanation of the Mastoid Process in acute purulent Otitis Media with implication of the mastoid cells. Reprinted from Archives of Otology, Vol. IX, No. 2, June 1st, 1880.

THE MARINE HOSPITAL SERVICE.

Official List of Changes of Stations and Duties of Medical Officers of the Marine Hospital Service of the United States. April 1, 1880 to June 30, 1880.

Bailhache, P. H., surgeon. Detailed as chairman of board for the physical examination of officers of the Revenue Marine Service, April 28, 1880. Detailed as chairman of board for the physical examination of candidates for appointment as cadets in the Revenue Marine service, May 21, 1880. Detailed as medical officer Revenue Bark "Chase." during practice cruise, June 1, 1880.

Miller, T. W., surgeon. Detailed as chairman board of examiners to convene in New York, June 21, 1880. June 4, 1880.

Long, W. H., surgeon. Granted leave of absence for ten days from April, 16, 1880. April 14, 1880. Detailed as member of board to select a site for a Marine Hospital at Memphis, Tennessee, May, 12, 1880.

Fessenden, C. S. D., surgeon. Detailed as member board of examiners to convene in New York, June 21, 1880, June 4, 1880. Granted leave of absence for eight days from June 13, 1880, June 9, 1880.

Sawtell, W. W., surgeon. Detailed as recorder of board to select a site for a Marine Hospital at Memphis, Tennessee, May 12, 1880.

Doering, E. J., surgeon. Detailed as recorder board of examiners to convene in New York, June 21, 1880, June 4, 1880.

Fisher, J. C., passed assistant surgeon. Granted leave of absence for thirty days from May 6, 1880, April 21, 1880. Detailed as recorder of board for the physical examination of officers of the Revenue Marine Service. April 28, 1880.

Godfrey, John, assistant surgeon. To report to board of examiners for examination, June 4, 1880.

Brown, T. H., assistant surgeon. To act as inspector of unserviceable hospital property at Boston, Mass., April 13, 1880. To report to board of examiners for examination for promotion, June 4, 1880.

Goldsborough, C. B., assistant surgeon. Detailed as recorder of board for the physicial examination of candidates for appointment as cadets in the Revenue Marine Service, May 21, 1880.

Keys, W. M., assistant surgeon. To act as inspector of unserviceable hospital property at St. Louis, Mo., April 13, 1880.

Mead, F. W., assistant surgeon. To act as inspector of unserviceable hospital property at San Francisco, Cal., April 19, 1880.

Porter, F. D., assistant surgeon. Granted leave of absence for fourteen days from July 2, 1880, June 29, 1880.

PROMOTION.

Fisher, J. C., passed assistant surgeon. Promoted to be passed assistant surgeon, April 2, 1880.

THE ARMY.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from June 13, 1880 to June 28, 1880.

The following promotions and appointments are published:

Lieut.-Colonel W. S. King, to be surgeon with the rank of colonel.

Major John E. Summers, to be surgeon with the rank of lieut.-colonel.

Assistant Surgeons, Wm. E. Waters, Edwin Bentley, Geo. A. Otis, and Geo. P. Jaquett, to be surgeons with the rank of major.

Rudolph G. Ebert, of Oregon, Robert J. Gibson, of Connecticut, Robert B. Benham, of Pennsylvania, Wm. C. Gorgas, of Alabama, Norton Strong, of Michigan, and Arthur W. Taylor, of New York, to be assistant surgeons, United States army.

Goddard, C. E., major and surgeon. Granted leave of absence for four months, S. O. 128, A.G.O. June 11, 1880.

Cronkhite, H. M., captain and assistant surgeon. Granted leave of absence for two months, S.O. 134, A.G.O. June 18, 1880.

O'Reilly, R. M., captain and assistant surgeon. Granted leave of absence for one month, on surgeon's certificate of disability, with permission to leave the department, S. O. 73, department of the South, June 18, 1880.

DeLoffre, A. A., captain and assistant surgeon. Relieved from duty in department of the South and assigned to duty in department of the Missouri, S. O. 137, A .G. O. June 22, 1880.

Chicago Medical Review

PUBLISHED ON THE FIFTH AND TWENTIETH OF THE MONTH.

E. C. DUDLEY, EDITOR.

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CHANDLER & ENGELHARD, Publishers.

EDITORIAL OFFICE, 70 MONROE ST. BUSINESS OFFICE, 60 WABASH AVE.

VOL. II. No. 2 CHICAGO, JULY 20, 1880. $2.00 A YEAR

ST. PAUL MEDICAL COLLEGE.—Public opinion and the honest convictions of medical men are taking such shape, that evidently medical colleges must soon extend their curricula or go to the wall. Harvard takes to herself great consequence because, forsooth, she has extended her courses to four years, although the fourth year is not obligatory. In a prophetic anticipation of higher requirements, several colleges are clamoring for notoriety, because they have already required three courses of lectures a little in advance of the time when they would be compelled to do so. Many other colleges are halting between two opinions which are born of a desire for dividends on the one hand, and of a desire to avoid the disgrace which comes from the propagation of ignorant doctors on the other. Most of the prominent medical schools of the country are either engaged in or anticipating reform. But it is a reform which in most cases comes from outside pressure, rather than from inside growth. Happily this general rule has a few exceptions, of which the most striking may be found in the recent organization of the St. Paul Medical College. This college is the outgrowth of a preparatory school, which has been conducted for a number of years in St. Paul. Its faculty in the organization of a regular medical college, has forestalled that criticism which, with so much justice, may be leveled at the usual new medical college. This institution, although in its infancy, requires a four years' course, and its faculty declare their intention of adhering inflexibly to the strict enforcement of this requirement. It would be well if some of the great colleges of New York, Chicago, Philadelphia, and Boston, instead of being filled with wonder, like the North American Indian witnessing the advance of civilization, should follow the example and inaugurate, not merely endure, reform. Will they dare to do it? To-day the St. Paul Medical College stands alone, having a standard higher than that of any other medical college in the United States. It is due this pioneer college, that the medical press give to it their unqualified support and encouragement.

VACCINATION FOR ALL ZYMOTIC DISEASES.—The recent investigations of M. Pasteur, which have been presented from time to time to the French Academy of Sciences, will prove of immense practical value in the prevention of chicken cholera, indeed of no less value than were his former studies of the silk-worm disease. Should that scientist succeed in making good his promises, a generalization might be made somewhat as follows: The poison of any zymotic disease may be so modified that it will have the same relation in the prophylaxis of that disease that vaccine virus has in the prophylaxis of small-pox. A more valuable contribution than that which these researches indicate, can scarcely be imagined. An extended abstract with comments may be found on another page under the heads "Pasteur's Investigations" and "Is the Germ Theory Overdone?"

COLOR BLINDNESS. — In the May number of the Contemporary Review, Dr. William Pole, F. R. S., gives a popular article on color blindness, which, though written for the general reader, is of interest also to professional men. Dr. Pole is himself a Daltonian, and his testimony in regard to his own case is an addition to the clinical literature of the subject. One point that he makes seems to us worthy of special mention and, it may be, contains a truth that has

been too much overlooked in the present general diversion of public attention to this matter. It seems to us highly probable that, as he says, the color blind, or partially color blind individual learns to attach the conventional names to colors which he does not recognize like other people, but which convey a definite impression to his mind. Thus if a pilot or an engineer can see the red and green used in signal lights not as red and green but nevertheless as markedly distinct from each other, (and such a thing is clearly possible in some forms of color blindness), he might be fully as well qualified for his position as the person with perfectly normal vision, and it would be a great injustice to disqualify him for his defect. The comparative rarity of accidents that can be attributed to mistakes in signals, and the frequency of color blindnes, makes it seem probable that this may be often the case. At any rate some discrimination in exclusions from services on account of color blindness would seem indicated as simple justice. We have heard of engineers and pilots who had served many years without any accident, and whose senses in these respects must have been practically tested every day, being thrown out of employment because of a failure to match worsteds in a doctor's office. It would seem that in such cases some practical test might be employed more nearly resembling the actual conditions in which the color sense is required in the railway or marine services, before the man is absolutely rejected.

The Opium Habit Cured by Coca.—Dr. E. R. Palmer, in the Louisville Medical News, May, 1880, reports two cases in which the opium habit was apparently cured by the fluid extract of coca. The report of a second case, which is very striking, is abstracted as follows: I found him in bed, looking like a consumptive. He at once told me that he was an opium-eater, and that he had reached a point where thirty grains of morphine daily were necessary to supply the cravings of his perverted nature. He said that he was now trying to break off, and wanted me to help him. I told him of what the coca had done, and with a few cheerful words prescribed it for him. The next day I found him still taking morphine, although in small doses, as he had not been able to find the coca. Upon the following day he had had but one dose of morphine in eighteen hours (one-fourth grain) and plenty of coca. He was hopeful and cheerful. The next day I failed to see him, and on calling the day following the servant met me at the door with the statement that he was well and had gone down street. When I last saw him he looked like another man, so light and cheerful was his face and so free from the evidences of opium.

Roseola Uterina.—Dr. Kidd, in a paper before the Obstetrical Society, of Dublin, (British Medical Journal, February 14, 1880) presented a paper on this subject, of which the following is an abstract from the Medical News and Abstract, of June, 1880: The disease, though by no means unfrequent, had never, so far as he could learn, been described in books. The disease occurred most frequently in patients in childbed, but also followed small operations on the uteri of woman who had never been pregnant. He thought it occurred in about three per cent. of all the midwifery cases he had attended. About the third or fourth day after delivery, the patient complained that the skin of the abdomen was irritable and itchy, and, on examining it, an eruption was found very similar to that of scarletina; next day the axillæ became affected in a similar way; thence it extended over the chest and neck, but not affecting the face, and down the arms to the hands. The thighs, legs, and back became also covered. During all this time there was no constitutional disturbance, no fever; the pulse and temperature, tonsils and appetite, milk and lochia, remained normal. On the second or third day after its first appearance, it began to disappear, fading first in the places last affected. Dr. Kidd considered that the erythema was due to nervous derangement, and explained the phenomena on that hypothesis. The nerves supplying the internal surface of the uterus were at pregnancy enlarged; the long continued irritation of those exposed nerves (after delivery) exhausted the centres with which they were connected, and hence the vaso-motor nerves proceeding from those centres were paralyzed for the time being; the arteries controlled by them relaxed and allowed an excess of blood to the capillaries of the skin, hence the redness and erythema. As soon as the irritation of the peripheral nerves ceased, the centre recovered, and the vaso-motor restraint again contracted the capillaries, and the erythema disappeared without any constitutional disturbance.

Pyrogallic Acid has recently been lauded in the treatment of psoriasis and other affections, as a safe substitute for goa-powder. It will hence not be amiss to point out the danger in its use as described by Neisser (in the Zeitschrift f. klin. med., 1879.) The first recommendations of this acid came from Vienna, where Iarisch, and later Kaposi studied its influence on psoriasis. Used as a salve in the strength of 10 per cent its curative properties are quite marked in that disease. While slower in effect than goa-powder, or its derivative chrysarobin (the so-called chrysophanic acid), it is much less irritating and does not stain the skin indelibly. Kaposi, however, admits

that he has seen strangury greenish black color of the urine, slight fever and nausea follow its use. A fatal case, however, of poisoning by pyrogallic acid has been observed by Neisser. A stout man, 34 years of age, suffering of universal psoriasis, was to be treated partly with pyrogallic acid and partly with (true) chrysophanic acid in the form of an alcoholic extract of rhubarb. One-half of the body was thoroughly rubbed with one or the other salve, covered with a thin coat of it and finally with rubber-paper. This was done at 6 P. M. Within two hours malaise set in, but still the patient slept until midnight. At that time there occurred an intense chill, with diarrhœa and vomiting. The half of the body covered with rhubarb-extract became tender and painful, while the rest of the skin merely burned slightly. Total collapse now set in. Death occurred in thirty hours. The temperature raised from 38.1° to 38.9° C. Although the dressing had been removed the first morning, its constituents had passed into the urine, which was black and opaque, and gave the reaction of the rhubarb. No albumen was found at first, but subsequently it contained hæmoglobin. The total amount voided during the sixty hours did not exceed 1,600 centimeters. The post mortem showed mere destruction of blood corpuscles and infiltration of the kidneys with free hæmoglobin. In order to decide to which one of the agents employed the destruction of blood corpuscles and subsequent hæmoglobinuria was due, the author experimented on rabbits. A few trials showed at once the harmlessness of subcutaneous injections of various preparations of rhubarb. The poisonous action of pyrogallic acid, however, was placed beyond doubt, as indeed it had been by previons experiments of various other observers. Dr. Neisser distinguishes four degrees of poisoning. The first degree may be attained with a dose of less than 1 grain pr. kilo body-weight. Dogs are even three to four times as sensitive as rabbits. Soon after the injection the temperature sinks while the pulse and respiration became accelerated. The animals appear drowsy. The acid may be found in the urine for 24 hours by adding ferrous salts containing some ferric oxide, which strike an intense dark violet color with pyrogallic acid in the presence of alkalies. A second degree is reached by 1 grain pr. kilo. of the animals weight. It is characterized by chills, tremors, and reduction of irritability. Hæmoglobinuria sets in, but death does not always follow. By giving more than 1 grain pr. kilo. a third degree is attained, similar to the former, but invariably fatal. Two grains pr. kilo. result in slight convulsions within a few minutes, causing death in coma. With such a dose the blood is found black and of gelatinous consistency. This effect is the result of the chemical action of the acid absorbing oxygen in alkaline solution and thus decomposing the constituents of the blood. In view of this poisonous action the author warns against any extensive use of this substance.

Lesion of the Renal Plexus the Cause of Bright's Disease.—A very valuable contribution to pathology has been made (American Journal of Medical Science, July, 1880) by Dr. J. M. DaCosta and Morris Longstreth. The next number will contain a more extended account of these investigations which have led them to the following striking conclusions. I. That in Bright's disease, especially in the contracting kidney, there exists a constant lesion on the renal plexus. II. That whilst this leison might be looked upon as forming part of a general process of degeneration in connection with the kidney disease, we think it is the cause of the renal malady, and precedes the degenerative changes. III. The diseased condition of the renal ganglia furnishes the clue to the alterations of the vessels of the kidney. IV. That similar changes producing similar results may exist in other ganglia; for instance in the cardiac plexus, explaining the hypertrophy of the heart.

The Climates of New York and London.—The Journal of the Scottish Meteorological Society, new series, Nos. 55 and 56 contains a comparison of the climates of London and New York, by M. Buchan, Meteorological Secretary, and Dr. Arthur Mitchell, which will be of interest. The following is an abstract of the notice given this article in the Edinburgh Medical Journal, June, 1880:

New York is situated on an island; its population exceeds a million, one-third of whom are of European birth, one-fifth indeed being Irish, living in a climate different from their own. The mean annual temperature of London and New York is nearly the same, yet their climates are widely different. Heat and cold are more extreme in New York. The special climatological characteristic of New York as contrasted with that of London, is the distribution of temperature through the months of the year. The mean annual temperature of New York is 51°.2, and of London 80°.6, being nearly the same, but the monthly means differ greatly. July in New York is 12°,6, hotter and February 10°.1, colder than in London. The amounts of monthly increase and fall in temperature also vary in New York. From February to July, the increase in temperature from month to month is 5°.3, 10°. 7, 13°.2. 10°.5, and 5°; in London, 1°.6, 6°.7, 5°.5. 6°.4, and 2.8. New York has fewer rainy days than London, but nearly double the mean annual rainfall.

The cases of measles in New York and London,

each shows a double maximum throughout the year. The maxima in New York are in February and July; in London in December and June. Scarlet fever has its maximum in New York from December to June; its minimum in September. In London, on the contrary, the minimum is from January to July. It begins to rise in August, and is highest in October. The curve of mortality from bowel complaints is the most pronounced of all. In New York it reaches its maximum and commences to decline in July. In London it reaches its maximum between the middle of July and the middle of August. The hotter the summer the greater the mortality from bowel complaints In New York. In both London and New York phthisis is the most fatal disease, causing respectively one-eighth and one-seventh of the entire mortality. Sunstroke is common in New York during the hotter weather. The mortality from this cause was in 1872 three hundred aud twenty, and in 1876, two hundred and sixty. Suicide is most common in the warmest months, both in New York and London.

Hydrate of Chloral in Acute Gastro-Enteritis of Children.—Professor Kjillberg (Nordjskt Mediciniskt Arkive, Vol. XI, No. 3.) has an article which has been abstracted in the Canada Medical and Surgical Journal, June, 1880, as follows: There is no medicine which is of so much use as chloral in checking the vomiting of acute gastro-enteritis of children. Being rapidly absorbed it stops the vomiting, calms the patient, and often checks the diarrhœa. It is best given by enema, so as not to risk its rejection by the irritable stomach. It should be given soon after the bowels have been moved. The dose for a child of from five to six months is twenty-five to thirty centigrams (three and a half to four grains), while to a child of from twelve to fifteen months, fifty to sixty centigrams (seven to eight and half grains) may be given. The bulk of the injection should not exceed a dessert spoonful. The enemata may be repeated two or three times daily, and the dose may be increased if it is found necessary. In order to increase the effect of the chloral, the author generally adds to each enema a drop of the tincture opii, and, if stimulants be indicated, five to fifteen drops of Hoffman's anodyne. At the same time other remedies are not neglected; iced water, or cognac, or champagne for the vomiting, opium for diarrhœa, hot mustard baths for the albuminuria should it occur, stimulants for collapse, etc.

Antiseptic Treatment of Small Pox.—Doctor Ernst Schwimmer (Deutche medicinische Wochenschrift, May 8, 1880) having obtained no result from the internal administration of carbolic acid, salicylic acid, and thymol in small pox, has tried the external use of carbolic acid and thymol. The formulae which he employed were the following, a soft paste being made in each case. I. Carbolic acid, 4 to 10 parts; olive oil, 40 parts; finely powdered prepared chalk, 60 parts. II. Carbolic acid, 5 parts; olive oil, very pure starch, each 40 parts. III. Thymol, 2 parts; linseed oil, 40 parts; prepared chalk, 60 parts. His principal object was to prevent the disfigurement of the face as much as possible. For this purpose when patients were admitted into the hospital and the presence of an eruption of intense or confluent variola on the face was ascertained, the paste was applied to the parts on a linen mask, in which openings were cut for the eyes, nose and mouth. The greatest amount of success was obtained from the paste No. 1, which was used in 177 cases. Under its use, the drying of the pustules took place some days earlier than usual, and in several cases no great amount of suppuration occurred on the face. That it was the carbolic acid which produced this favorable result, the author considers proved, not only by the fact that other ointments had been used on previous occasions without effect, but also by the circumstance that carbolic acid could be detected in the developed pustules after the paste had been applied four days, and that the urine gave the characteristic reaction of carbolic acid. Dr. Schwimmer strongly recommends the local application of carbolic acid in variola.

"Benignant" Disease.—A correspondent of the British Medical Journal criticises the common use of certain terms in medicines, which would seem to infer that a thing which at the best, is only less bad than certain others, is an absolute blessing. Commenting on Dr. Drysdale's expression that syphilis "as seen among healthy young women is most benignant," the correspondent says: "This reminds me of a remark I once heard from a surgeon; he thought it was a good thing for a man to get syphilis, because whatever should be the matter with him afterwards, we could always cure him by giving iodide of potassium. In this view Dr. Drysdale's term might be no misnomer; and perhaps a satirist could suggest another reason why doctors should call disease benignant. By a well understood figure of speech, a disease may be called malignant, and another contrasted with it, non-malignant, but to speak of a diseased process like syphilis, however amenable to treatment as positively, yea superlatively, benignant, is surely the imbecility of nomenclature." We agree with the correspondent, and can not in any sense of the word, regard disease as a blessing, not even to the doctors. We prefer to leave such an application of

the term to those good people who can only see the hand of a kind Providence even in our greatest ills, but they cannot speak thus in any proper medical sense.

Pathology of Urticaria.—We take the following from the Philadelphia Medical Times, June 19, 1880: M. Vidal has published the results of the examination of a "wheal" excised during life, from a patient suffering from urticaria. The superficial and deep net-work of vessels was found dilated and gorged with blood, without any alteration of their walls being discoverable. Both the blood vessels and the lymphatic vessels were surrounded by lencocytes which were also scattered through the whole thickness of the cutis, and massed together at certain points. A few were to be seen between the cells in the deepest layer of the epidermis. Here this structure was normal, but another piece of skin was excised from a wheal on which the epidermis had been raised in a vesicle. This vesicle contained a serous albuminous liquid, and the debris of epithelial cells. In the middle layer the cells were vesicular, and those of the deeper layer granular. Lencocytes migrating among the cells in the deep layer of the epidermis were more numerous than in the other case. M. Vidal remarks that from this pathological alteration we may see the nature of the morbid process. In a predisposed subject some internal or local cause excites the action of the vaso-motor nerves, this excitation is soon followed by contraction of the cutaneous capilliaries, and this by their paresis and congestion, with retardation of the circulation. Hence at the center of the altered part there is migration of lencocytes and serous effusion, the acute oedema causing the pale prominence. A similar leison, a sort of acute oedema, may be produced artificially by injecting into the skin a few drops of water. What becomes of the lencocytes which have wandered out? Are they resorbed, or are they carried towards the epidermic layer as Biesiadecki suggests? It will be observed that this theory ignores any participation of the muscular fibres of the skin, which has been assumed to account for the limitation of the oedema and consequent prominence of the wheal, a limitation which M. Vidal leaves unexplained.

The American Medical College Association.—The meeting of American Medical College Association, occurred May 31, at New York, and is quite fully reported in the Detroit Lancet for July. Among other proceedings the amendment to the articles of confederation requiring three full courses of lectures, as a requisite for the degree of M.D., were passed by a vote of twenty out of the twenty-five colleges represented at the meeting, one not voting, and the representatives of four colleges being absent at the time of the voting. Only one of the three medical colleges in this city was represented, the Chicago Medical College. Its vote was in the affirmative. In the secretary's report the following results of the organization were claimed:

I. The Association has greatly diminished the number of diplomas that are bestowed without thorough study and examination. II. "It has diminished the number of 'dead-heads'" in the several medical classes. III. "It has diminished an undignified bidding for students, and so increased the respect entertained for medical colleges. IV. "It has undoubtedly increased the revenues of the colleges as a whole. V. "It has greatly promoted uniformity in medical teaching and in requirements for graduation. VI. "Its standard has been formally adopted by nearly all the colleges started during the period of its existence. VII. "All the two-term (in one year) schools have disappeared, and with but two exceptions, (and these among the oldest medical colleges in the United States), 'University of Virginia and Harvard,' it is impossible for a medical student to complete his college work within one year, at any regular college or colleges in the United States."

The Association is worthy of confidence. The report of Drs. Davis and Gross on the registration of medical colleges, which was adopted at the meeting, appears to have come from a critical examination of the present courses of medical instruction. Such information properly diffused would aid the progress of reform in this regard.

New Studies on the Pathology of the Hair.—Probably no appendage of the human body has been so much neglected by both pathologists and therapeutists as the hairy covering. One would suppose that, from its superficial situation, the hair should be one of the most easily studied of structures, both in normal and morbid conditions, but it is only within the last five years that, thanks to the labors of Gotte, Unna, and Eberth, we understand with any clearness even the development and growth of normal hair. Where a structure is so superficially situated as the latter, and where its healthy growth is so intimately dependent upon the state of the skin, the soil from which it springs, so to speak, it must be quite evident, that its diseased states cannot be intelligently appreciated, much less satisfactorily treated, unless the anatomical basis of such states be known. One of the first steps in the right direction has been recently made by a German dermatologist, whose

article appears in the last volume of Virchow's Archiv. He has selected for his study the pathology of alopecia areata. What has been written on this disease hitherto is an apt illustration of the vague character of hair pathology. Some writers have ranked it as a parasitic affection, others as a neurosis; some have located the disease in the blood vessels of the skin, others in the follicular sheath, and so on, but none have yet offered any substantial information on the subject, resting their results on careful histological examinations, unless we except Rindfleisch and the writer above referred to, H. Schultz. Previous observers had committed the error of basing their conclusions on examination of hairs which fell out of the centre of the bald spots. The proper locality for study is, however, at the margin of these areas, because here the progressive effects of the disease can be best seen. The normal hair possesses an inner and an outer sheath on its root; it is in the inner that the cornification of the hair cells takes place, and it is the innermost division of the outer sheath which furnishes the material for growth, and indeed, it corresponds for the hair bulb, to what the rete mucosum is for the rest of the skin. Unna and Schultz found that the hardening process occurs at a definite distance of the shaft in healthy hairs. When a hair drops out naturally, as from age for example, its bulb separates so that the inner sheath follows the hair. Both these phenomena are changed in many hair affections, either through premature cornification or through irregularity in the growth rate. Previous investigators had thought to explain the loss of hair through an abnormal and excessive growth of the external root sheath by which the hair was supposed to be loosened or cut off from its normal source of nutrition, but a glance at the figures given by Newmann, Esoff, and others, show that they have described as pathological excrescences the irregularities of the bulb contour, which are found to some extent in normal hair, especially at the points where the arrectores pili are inserted. A careful examination of the hairs from different areas and different stages of alopecia areata, showed that the disease is not due to a disordered nutrition of any special segment of the hair bulb, but that there seemed to be a disturbance of that balance of power which is supposed to exist between the extrusive force of the hair and the resistance opposed by the derma to this extrusion. This leads to a retention of the cornified part of the hair, with all its results. Parasitism could be excluded as an essential factor, and while the writer mentioned believes to have explained the local pathogenesis of the disease, he presents simply as a surmise, that his results favor the supposition of a neurotic distant cause.

The Bromides in Epilepsy.—Dr. E. C. Seguin in a clinical lecture (Philadelphia Medical Times) expresses the following views: The drug should be continued until three years after the last epileptiform manifestation, however slight. Brown-Sequard places the limit at five years. Patients who have given up the medicine at the end of two years, suffer relapse. The bromide should be given on the empty stomach. Acue is less likely to follow its administration in alkaline than in pure water. Vichy may be used by those who can afford it, and a solution of bicarbonate of soda by others. Instead of giving the bromide in the largest quantity at bed-time after the manner of Brown-Sequard, because the majority of attacks occur between bed-time and 8 or 9 p.m., it should be given in the largest amount just before the time when the attacks are wont to occur. The lecturer concludes with a mention of his manner of giving the bromides in different cases, it being understood that the patient in each case is an adult. I. When the attacks occur at night or early in the morning, we might give one teaspoonful of the mixture before each meal, and then at bedtime. II. When the attacks vary as to time we might give two teaspoonfuls in the morning, one before supper, and two or three at bedtime. III. When the attacks are more liable to occur in the daytime, we might give three or four teaspoonfuls in the morning, one before supper, and two or three at bedtime. IV. In the nocturnal form we would give three or four teaspoonfuls at one dose, either at bedtime or early in the evening. The gentleman who is using one hundred and sixty grains of bromides a day, takes six teaspoonfuls in the morning and five at night.

Theology Versus Sanitary Science.—As most of our readers may know, a virulent form of typho-malarial fever broke out in Princeton College during the past summer, to which at least half a dozen of the most promising students of that institution fell victims, while over a score were prostrated and had to be removed to their homes. A thorough examination of the premises showed that the outbreak was due to a terribly neglected condition of the cess-pools and to generally bad plumbing. Recently the distinguished president of the college, a well-known theologian, celebrated for his onslaughts on the evolution doctrine, in a public address to the alumni and graduates, referring to the sad bereavement of the mothers and and fathers of those who had died at the institution, spoke of the epidemic as a dispensation of Providence. This statement throws new light on the subject of accidental death, on death in consequence of sanitary negligence, and even on death

from willful murder. Hereafter when a train of cars plunges through a rotten bridge, and the usual outcry against the criminally indictable directors of the road breaks forth, all that will be necessary for the latter to do, will be to refer to the precedent inaugurated by the Princeton theologian, and, turning up their eyes sanctimoniously, avoid criminal and civil prosecution by declaring the accident a dispensation of Providence. Drunken steam-boat pilots, rusty boilers, dirty streets, the cess-pools of Memphis, the defective cemeteries of New Orleans, will hereafter flourish under the category of dispensations of Providence. Medicine has, unfortunately, but rarely come into contact with theology, without this resulting in a more or less disastrous collision. The church opposed dissection of the human cadaver, it abhorred every operation in the course of which blood was shed; it decried vaccination, and now it seems also, though less directly, to discourage sanitary measures by attempting to lay on the broad shoulders of the Deity what should be attributed to the plumber, and by blinding the eyes of the public to the actual and tangible danger through the substitution of a vicarating puppet. To use the name of the Lord as a personally responsible factor in calamities so directly and potently due to human negligence as was the Princeton cess-pool endemic, is to take that name in vain, and to diminish the respect of the laity either for the Creator or for those who claim to be His agents on earth.

Sympathetic Involvement of a Previously Healthy Eye from injury or disease of the other, has been not only the terror of the practical oculist, but also a puzzle to the pathologist. Naturally it was concluded that the sympathetic inflammation was produced by an irritative influence conveyed through the ocular nerves, but no more definite idea of the nature of this influence could be obtained than of any other instances of alleged trophic nervous action. Formerly, the nerve involved was supposed to be the optic nerve, but, on anatomical examination of such an eye-ball, Muller found this structure completely atrophied in the eye primarily involved. The microscope still showed, however, the existence of ciliary nerves, which are directly surrounded by the involved tissues. Hence the role of conductor of the inflammation has since been attributed to the ciliary nerves. A decisive step in advance has now been made by Dr. Knies, of Zurich. (Knapp's Archives, June, 1880.) He obtained the chance of examining the eyes after accidental death in a case of nontramatic serous in its involving one eye (affected primarily?) more than the other. We will not discuss here the lesions found in the anterior part of the eyes, which have but little bearing on the question. They consisted almost wholly in infiltration with leucocytes. In both eyes there existed slight neuritis of the optic nerve, which, however, had not spread along the nerve to any distance beyond the eye-ball. But the point of interest was a dense infiltration with leucocytes of the pial sheaths of both optic nerves. At the post mortem they had been cut off close to the chiasm and throughout this whole length, the pial sheath was filled with round cells. Unfortunately the chiasm itself was not examined, but there can be little, if any, doubt, that the infiltration reached the nerve of the other side through the chiasm. Hitherto injections of the lymphatic channels of the optic nerve had only been undertaken in a centrifugal direction. Knies found that the Prussian blue passed as far as the chiasm and then crossed to the nerve of the other side, following this down to the eye-ball. On pushing the injection further, the well-known communications between the nerve sheaths and the lymph spaces of the choroid, were easily shown. This route is evidently the one followed by the inflammation in the case examined. The wandering of leucocyte commenced in the iris and ciliary body, which, in fact, were the centres of the inflammation. It spread thence to the sheath of the optic nerve and gaining the other side at the chiasm it proceeded now centrifugally to the other eye-ball. Instead of obscure trophic or nervous influence, we deal with an inflammatory process spreading by continuity, a condition hitherto not suspected. To conform with this pathogenesis, the author proposes the name of "uveitis bilateralis continua" instead of the old term sympathetic serous iritis. Since the article is based on but a single case, anatomically examined, it would be rash to explain in this manner all sympathetic inflammations, however reasonable this may seem. Further experiments on animals may throw light on this subject, although it must be confessed that so far all attempts in Donders' laboratory to produce sympathetic troubles in animals have failed.

In connection with the foregoing we may also refer to another series of researches demonstrating the inter-dependence of the two eyes through the medium of the ciliary nerves. In a publication on vascular reflexes of the eye (Centralblatt, 1880, No. 19) Drs. Mooren and Rumpf study the vascular changes in the rabbit's eye on irritating the exposed iris of the eye. On directing a spray of mustard-spirit against the exposed iris, there occurs a hyperæmia, accompanied by anæmia of the other side. This changes speedily to hyperæmia, which, after a while, ceases. These changes correspond to similar variation in sensibility, i. e., comparative anæsthesia alternating with hyperæsthesia which Rumpf pro-

duced in other researches in two symmetrical regions of the skin by irritating one side. In fact he explains the so-called "transfer" of sensibility observed in metalloscopic experiments on the basis of this bilateral connection of symmetrical nerves. On prolonging the irritation of one eye he could even produce hyperæmia of the other side of longer duration and followed by slight exudation from the vessels of the iris. Similar clinical observations may indeed be made quite often.

Pasteur's Investigations.—That eminent chemist, Pasteur, since last February, has been communicating the results of his researches on chicken cholera, to the French Academy, a full account of which is given in the Moniteur Scientifique for June. The disease has been causing serious losses to French poultry-farms, and the truly scientific study of Pasteur may save the country many thousands of dollars. As an instance of a thoroughly scientific inductive method, guided by most ingenious and delicate experiments, this investigation has but few rivals.

Chicken cholera is characterized by somnolence of the animal. It roosts quietly, apparently in deep sleep, from which it cannot be easily aroused. The feathers are erect, while the wings and head droop, giving the chicken a round shape. Recoveries are rare, death coming on gradually, usually within the first twenty-four hours. Previous observers had found large numbers of vibriones in the diseased animals, but no further information was obtained before Pasteur's researches. In order to cultivate these vibriones, Pasteur used in vain various fluids, which afford an excellent soil to most bacteria. Neutralized urine filtered, or decoction of yeast did not allow these microorganisms to thrive. The best soil for them was found to be a filtered decoction of muscles, in fact, chicken-soup. By heating this fluid to 110°C. (after neutralization with potash) it becomes "sterilized," i.e. it remains free forever from bacterial growth, if not inoculated. But on the introduction of the cholera vibrio this grows with astonishing rapidity. Within some hours the fluid appears milky, on account of the presence of enormous numbers of very small motionless vibriones, which appear slightly constricted in the centre. In a few hours more they subdivide, and are now of such extreme minuteness that the fluid appears again much clearer. These vibriones are really the cause of the cholera, as may be shown by inoculation. They do not lose anything of their virulence by successive cultivation in fresh lots of chicken-soup. On inoculating guinea pigs with this bacterial fluid, by means of subcutaneous injection an abscess is produced, which may sometimes persist for a long time. The general health of the guinea-pig, however, does not suffer. The animal evidently does not afford a good soil for the parasite, still the latter exists in the pus, from which it may be cultivated in a nourishing fluid. The pus likewise will inoculate either chickens or rabbits, causing the disease in its full virulence. Hence on keeping guinea-pigs together with chickens, the former may cause the epidemic to spread among the latter but escape themselves. The chicken is so susceptible that a piece of contaminated bread, if swallowed, will infect it at once. Since the vibrio is found in immense numbers in the excretions, it is evident how an epidemic must spread among all inhabitants of the poultry-yard. The remedy suggested by Pasteur consists in *isolating the affected animals until their death, and in cleaning the yard, especially with dilute sulphuric acid, (less than one per mille) which kills the parasite.*

But now comes a point of fundamental importance. By means of a procedure which he does not wish to publish until his researches are completed, Pasteur succeeded in attenuating or diluting so to speak, the virus. After this treatment, whatever that may be, the vibrio is somewhat slower in development, when cultivated, but does not show any other palpable differences from the original parasite. *But when now inoculated it causes merely a mild form of the disease,* which does not prove fatal, but which *grants an immunity against subsequent attacks.* This immunity is not absolute, it is true, but as Pasteur says, it may be made so by repeated inoculation or "vaccination." The relation in this case is the same as between small-pox and vaccination. The virus of chicken-cholera weakened in action (by his unpublished method) produces but a mild affection, but protects against the effects of a subsequent inoculation with the most virulent cultivating fluid. Here, also, as in vaccination with cow-pox, the certainty of protection may be increased by repetition of the inoculation.

Pasteur describes hereupon the effects of a first inoculation with attenuated virus. If a contaminated needle be used in pricking the pectoral muscle, that tissue becomes tumefied, hard and whitish, even waxy in appearance. It is infiltrated with leucocytes but does not suppurate. The parasite multiplies rapidly, while the muscular elements lose their structure and die. On recovery there remains a muscular sequestrum enclosed in a cavity, from which it may be removed by a slight incision, whereupon the wound heals kindly. In case of death from too violent an attack, the parasite is found throughout the body, and there exists also inflammation of the pleura and pericardium. If the immunity due to the "vaccination" is not absolute, the effect of

another pricking will be much less intense than the first. The author explains the immunity by assuming that the first brood of vibriones renders the soil (the body of the animal) incapable of nourishing subsequent generations, an assumption which alone can explain the self-limitation of parasitic diseases. But, to give this view a firm basis, he performed the following experiment: A quantity of chicken soup is inoculated. The development of the vibrio is enormous at first, but always ceases about the fourth day. The fluid is now filtered (he does not say through what substance) until it is perfectly clear and free from micro-organisms. On reintroducing a fresh supply of vibriones, these do not develop at all, the fluid remains clear and sterile. The soil is no longer capable of supporting the chicken-cholera parasite. But any other form of bacterial life, for instance the splenic-fever baccillum, will still grow and multiply in this fluid. Similarly a chicken may be immune against the cholera, but will still yield to the parasite of splenic fever.

In a following article, Pasteur details experiments showing the relative immunity due to vaccination with the "dilute" chicken-cholera virus. While the original disease is almost invariably fatal, its severity is much reduced by the previous inoculation with the most "dilute" virus which Pasteur could obtain. While still concealing his procedure of attenuation, he states at least that he can diminish the virulence of the vibrio to any desired extent. Still a certain percentage of these feebly inoculated animals die when exposed to the disease itself. But the immunity is more perfect after a second vaccination, although there exist still individual differences between different animals. A third vaccination, however, protects absolutely, no matter how the virulent virus be now introduced, whether by pricking, by being swallowed, or by injection into the vessels.

Returning to his experiments on cultivation of the parasite in chicken soup, Pasteur showed that here also we may speak of a relative immunity. If the vibrio be removed from the fluid by filtration after the lapse of about four days, the fluid remains sterile for ever. But, if the filtration be done on the second day, the fluid, when reinoculated, will again allow the vibrio to develop, *though much more feebly than a fresh fluid.* Thus all gradations between fresh and absolutely sterile soil may be obtained. The conclusion seems almost inevitable, that the vibrio in developing, abstracts and consumes some principles upon which its growth depends, and thus exhausts the stock upon which it must live. Another explanation, however, is also possible, viz.: that the parasite produces by its own tissue change, principles which, when accumulated, prove poisonous and prevent its growth. This view would not be without some analogies. The fermentation of sugar, for instance, proceeds only until enough alcohol has been formed to check the activity of the yeast-cell. Again, in putrefaction, various antiseptic products of the aromatic series are formed, like phenol, kresol, and others, which ultimately stop the process and kill the bacteria by their antiseptic properties. This hypothesis, however, is not admitted by Pasteur as far as chicken-cholera is concerned on the strength of direct researches. Taking a quantity of inoculated chicken soup, he waited until the vibriones had ceased developing, and hereupon evaporated the fluid in the vacuum without the use of heat. The original bulk was now restored by adding fresh decoction of muscle. Had poisonous principles been formed, they would still be present and prevent the success of a fresh inoculation. Nevertheless, this did succeed, and hence Pasteur denies that the checking of development is due to poisonous products from the tissue change of the vibriones. It seems to us, however, that this proof is not complete, since these principles may be volatile, as were indeed those antiseptic substances produced by putrefaction. In another experiment Pasteur filtered and evaporated likewise, the cultivating fluid (in the cold vacuum) after a few days cultivation, and injected the extract into chickens, testing subsequently whether the animals were now immune against inoculation. The result was negative. The immunity is hence not due, according to Pasteur, to substances produced or secreted by the vibrios. These experiments however, led to another observation of extreme interest. While the injection of the cultivating fluid deprived of the vibriones it had contained, does not render the chicken immune against the disease, *it produces by itself symptoms greatly resembling those of the disease.* These symptoms consisted in drowsiness, and drooping of head and wings, so that these *poisoned* chickens could not be told apart from animals really infected with the disease. But these effects were only transitory and the animals recovered fully in about four hours, at least, from the quantities employed by Pasteur. The inevitable conclusion is, that those symptoms of the disease which pertain to the nervous system *are due to the action of soluble substances produced or secreted by the vibrio.* These principles, not yet isolated by Pasteur, are the result of the tissue changes of the vibrio, no matter whether it lives in the animal's body or in a cultivating fluid.

Is the Germ Theory of Disease Overdone?—The recent researches of Pasteur on authrax, and of Perroncito and Toussaient on chicken-cholera, have again called the attention of pathologists to the germ

theory of disease, one which we must now admit is the prevailing fashion in medicine. A micro-parasitic etiology seems indeed well established for many epidemic and endemic affections, and even where observers are still in doubt, as to whether a given bacillus or micro-coccus is the essential factor of the pathological state with which it is found, yet it must be admitted that such organisms are pretty constant accompaniments of the conditions in question. There are some recent observations on anthrax, made by German and French veterinarians as well as physicians, which appear to indicate that even in those diseases in which the micro-parasites are most constantly found, that the virulence of the disease is in no proportion to the number of bacteria. There may be so few bacteria that it is difficult to find any in some specimens of the blood, while the anthracoid affection is extremely severe, and again the blood may be crowded with these organisms and yet the symptoms are comparatively mild. In that peculiar affection known as contagious emphysema, which affects cattle and produces so rapid a decomposition in the blood, that the resulting gas, carbureted hydrogen, accumalates in bubbles in the lymphatics, blood vessels, heart parenchymatous organs and subentaneous cellular tissues few or no microscopic organisms at all are found! These facts would seem to indicate that in many of the diseases, in which bacteria or other organism have been claimed to constitute the bearers of contagion, the essential factor is a chemical ferment, which while it offers a favorable soil for the development of microparasites, yet is able to transmit the disease without their assistance. Yellow and malarial fever are certainly of this nature, and in the more virulent former affection the researches of Schmidt, of New Orleans, have shown changes to result in the delicate elements of the nerve centres, which can solely be interpreted as the products of an intense biochemical change. The spoiled-rice theory of the origin of Asiatic cholera is also favorable to this view. Then in the specific odors manifested in many of the essential and exanthematic fevers, we have another hint, in support of a subtle chemical nature of the poison. A difference in the natures of chemical ferments would also better explain the immunity of various animal species to the influence of certain contagions, than the differences existing between different species of bacteria and micrococci. If we take an ordinary bacterium, such as the one found in stagnant water, we shall on transferring it to an infusion of vegetable or animal matter, find that it will continue reproducing itself in either. Pasteur found that the microbe of chicken-cholera would reproduce itself in various fluids, common rain water or chicken broth. Now if a microparasite will flourish in such differently constituted liquids, there is no reason why it should not attack all animal species promiscuously. The differences between the fluids of different species of animals are far less than those existing between rain water and chicken broth! We do, however, find subtle differences between the fluids of various animals, and these manifest themselves, like the presumable chemical ferments or contagious and endemic disease by delicate shades of smell. The fresh blood of the dog is instantly recognizable by the characteristic odor, and those who have opportunities to dissect various species of wild animals, will find that related species have related or similar odors. The anthropoid apes resemble man, the baboon has a peculiar odor, reminding one of that of a dog, on dissection. The latter differs from the cat, but resembles the bear and seal; the horse and ass differ from the cow, the rodentia resemble each other in having the same odor which is familiar to the vivisectionist as characterestic of the rabbit, and the reptilia have one common distinctive feature in this respect. May not the resistance opposed by certain species to the reception of special contagious morbid processes be after all due to the fact that a natural chemical combination of the animal fluids is inimical to the action of a certain chemical ferment? But while this side of the question is, and probably will remain a controversial one, there are some views now being promulgated on the subject which merit unhesitating condemnation. That Pasteur, as the result of inquiries pursued for many years in one single field, should feel inclined to attach a greater importance to the germ-theory than it merits, is but natural. When, however, he proposes, as he recently did, before the Society of Biology of Paris, to start on a voyage of discovery, and confidently predicts that he will find and introduce a microparasite with which to annihilate the pebrina affecting the silk-worm and the phylloxera of the grape, he lays himself open to the sarcasm which was showered down on him by several of the naturalists present at the meeting. But a still greater extravagance has been committed by Cobbold, who, fortunate enough to discover as the source of a certain affection among horses, an intestinal parasite, the anchylastomum duodenale, hastily brings this affection as well as trichinosis and the disease resulting from the presence of filaria in the blood, in parallelism with ordinary infectious diseases. It is unnecessary to say that there is every difference between the latter and affections due to the local irritative effects of the larger parasites. Any inference advanced for the germ theory on such a basis is, in the nature of the case, a faulty one.

CONTRIBUTIONS.

SUMMER DIARRHŒA OF CHILDREN.

BY JAMES I. TUCKER, A.M., M.D., CHICAGO.

In the broader sense of the term the summer diarrhœa of children is a neurosis. As medical science advances this doctrine will throw off the disguise of the transcendental, and its true significance becoming more and more practically recognized, will finally be accepted by every practitioner from the centre to the periphery of the profession. There is no other rational explanation of the phenomena with which we meet in the complex of symptoms which constitute the disorder in question. The disharmony of function amounts to a pathological entity. To restore harmony is the sole duty of medicine. Medicine thus becomes not only a *fine art*, but the finest of the fine arts, because it deals with human life. Unless we are guided by this principle we will oscillate between the *gloria in inferno* of allotherapy and the *gloria in excelsis* of homeotherapy and have no resource except in the pityless and pointless pædriatics of a pathy. Let the etiology be what it may, certainly heat is a prime factor, but be it what it may, a specific disharmony of bodily function exists belonging to the first and second periods of anthropological evolution. The first period is brief, extending not beyond the seventh month, when the first teeth generally appear. But some time before the appearance of the teeth there are many disturbances liable to occur which are due, not to the pricking through of the teeth, as is popularly supposed, and this idea is not entirely foreign to the profession, but the appearance of the teeth is but an index of the general evolution of the alimentary canal. Bear this in mind and consider the necessary alterations which take place in the digestive function as a consequence, and we have an important guide to therapeutics. The therapeutics of early infancy is mainly alimentary. The mother's milk is the normal food for her infant. I need not say that she should be free from emotional disturbances which are so common to American life. Doubtless the prominent cause of those changes which render the human milk innutritious is psychic and emotional, and is often removed by what Bulwer Lytton calls the "calm intelligence" of the medical adviser. But artificial feeding must often be resorted to, for the mammary secretion is often deficient. Now we have to avoid both the Scilla and the Carybdis of medical extremes. A wet nurse may be the poorest substitute for the mother. On the other hand the market is flooded with foods which have become an abomination, and the commercial aim back of them is so far from being humane that it has for its object only the transmutation of nostrums into nuggets. In my experience, and it has not been too limited to justify me in expressing an opinion, the best artificial food is made of rice flour with water or with pure cow's milk. Cheap, wholesome, pure, highly nutritious, and easily digestible, there is no one article which commends itself more strongly to the judgment of the physician. When I use cow's milk alone, I generally follow Vogel and deprive the milk of its property of coagulating into large, compact lumps by adding at every meal a teaspoonful of a solution of carbonate of soda (ʒj. to water ʒvj.) In hot weather he also renders the milk alkaline by adding a tablespoonful of the solution to five ounces of milk.* The following is a very useful formula which was given me years ago by Dr. B. E. Cotting, of Boston Highlands, and has now and then served me well. Take of gelatine, 5 grains; arrowroot 25 grains; water 1½ pints; milk 1 pint and 4 ounces; cream ½ pint. Dissolve the gelatine in half the quantity of water cold. Dissolve the arrowroot in the other half, hot. Mix. Boil, adding the milk. In cooling add the cream. Sweeten a little. A very exact dietary, prescribing the food for different ages, in sickness and in health, would be desirable, because babies, like nations, cannot subsist on "glittering generalities." The nearest approach to a reliable dietary is to be found in Eustace Smith's work.†

With variations in quantities and with regard to the difference between our climate and that of London, and with due consideration of the peculiarities and indiosyncracies of American children, I have found this dietary a very useful guide. So useful in fact that I transcribe it for the benefit of the readers of the Review:

DIET IN HEALTH.

1. FROM BIRTH TO SIX MONTHS OLD.

DIET 1.

If the child be suckled, and the breast-milk be found in all respects suitable:

No other food.

The child should take the breast alternately every two hours for the first six weeks; afterwards, every three hours, except between 11 P. M. and 5 or 6 A. M.

In cases where the secretion of milk is slow to be established and the quantity drawn is insufficient to supply the wants of the infant, the following food may be given as an addition to the breast-milk, until the secretion becomes sufficiently abundant:

One tablespoonful of fresh cream.

Two tablespoonfuls of whey.

Two tablespoonfuls of hot water.

This mixture must be taken from a feeding bottle. The whey is made fresh in the house by adding one teaspoonful of prepared rennet to a pint of new milk. The coagulated casein is removed by straining through muslin.

DIET 2.

If the infant be brought up by hand:

New milk and lime water in equal proportions.

Three to four ounces, sweetened with a teaspoonful

*Alfred Vogel, M.D., "Diseases of Children," p. 43 Raphæl's trans. N. Y., 1873.

†Eustace Smith, M.D., "The Wasting Diseases of Infants and Children." Phila., 1871.

of sugar of milk, are to be given at first every two hours from a feeding-bottle.

The proportions of milk and lime water may be varied according to the age of the infant.

From six weeks to three months, one-third of lime-water may be used; and from three to five months this quantity should be reduced to one-fourth.

DIET 3.

If the infant be partially suckled, the breast-milk being poor and scanty:

The breast must be given only twice a day.

For the other meals the child must be fed upon milk and lime water as directed in diet 2.

Up to the age of six months the milk should be warmed by dipping the bottle containing it into hot water. After the age of six months it may be boiled if convenient. New unskimmed milk should always be used. If the milk has been previously skimmed a teaspoonful of cream must be added to each meal.

In all cases where the child is artificially fed, the utmost attention should be paid to the cleanliness of the feeding bottle.

2. FROM SIX TO TWELVE MONTHS OLD.

FIVE MEALS IN THE DAY.

DIET 4.

First meal, 7 A. M.

One teaspoonful of baked or boiled flour carefully prepared with a teacupful of milk.

Second meal, 2 P. M.

Third meal, 10:30 A. M.

A breakfast-cupful of milk alkalinized, if necessary, by fifteen drops of the saccharated solution of lime.

Fourth meal, 5:30 P. M.

Same as the first.

Fifth meal, 11 P. M.

Alkalinized milk, as before.

For the second meal, twice a week, may be given the yolk of one egg, beaten up with a teacupful of milk. * * *

DIET 5.

FOR A CHILD ABOUT TEN MONTHS OLD.

First meal, 7 A. M.

A dessert-spoonful of pearl barley jelley, dissolved in a breakfast-cupful of milk, and sweetened with loaf sugar.

Second meal, 10:30 A. M.

A breakfast-cupful of milk, alkalinized if necessary, by fifteen drops of the saccharated solution of lime.

Third meal, 2 P. M.

The yolk of one egg beaten up in a teacupful of milk.

Fourth meal, 5:30 P. M.

Same as the first.

Fifth meal, 11 P. M.

Same as the second.

Pearl barley boiled for six hours forms, on cooling, after the water has been strained off, a jelly which dissolves readily in warm water.

DIET 6.

To alternate with the preceding.

First meal, 7 A. M.

Half a teaspoonful of cocoa essence boiled for one minute in a breakfast-cupful of milk.

Second meal, 10:30 A. M.

A breakfast-cupful of milk alkalinized, if necessary, by fifteen drops of the saccharated solution of lime.

Third meal, 2 P. M.

A teacupful of beef tea, half a pound of meat to the pint.

A rusk.

Fourth meal, 5:30 P. M.

A dessert-spoonful of pearl barley jelly, dissolved in a breakfast-cupful of milk and sweetened.

Fifth meal, 11 P. M.

Same as the second.

It is advisable, as a rule, to avoid giving intermediate meals, and therefore the meals should be sufficiently large to satisfy all reasonable demands.

If the child requires food before 7 A. M., on waking from sleep, a little milk may be given.

A healthy child, between ten and twelve months old, will require from a pint and a half to a quart of milk in the twenty-four hours.

3. FROM TWELVE TO EIGHTEEN MONTHS OLD.

DIET 7.

First meal, 7:30 A. M.

A rusk, or a slice of stale bread, well soaked in a breakfast-cupful of new milk.

Second meal, 11 A. M.

A drink of milk, a plain biscuit or a slice of thin bread and butter.

Third meal, 1:30 P. M.

A teaucupful of good beef tea, a pound of meat to the pint, or of beef gravy with rusk.

A good tablespoonful of light farinaceous pudding.

Fourth meal, 6 P. M.

Same as the first.

Fifth meal, 11 P. M., if required.

A drink of milk.

DIET 8.

To alternate with the preceding.

First meal, 7:30 A. M.

The yolk of a slightly boiled egg.

A slice of thin bread and butter.

A cupful of milk.

Second meal, 11 A. M.

A drink of milk.

A slice of thin bread and butter.

Third meal, 1:30 P. M.

A mealy potato, well mashed with a spoon, moistened with two tablespoonful of good beef gravy.

A cupful of new milk.

Fourth meal, 6 P. M.

A rusk or slice of stale bread, well soaked in a breakfast-cupful of milk.

Fifth meal, if required.

A drink of milk.

The fifth meal, at 11 P. M., should never be given unnecessarily. The sooner a child becomes accustomed to sleep all night without food, the better. When, however, it wakes in the morning, refreshed by its night's rest, it should never be allowed to remain fasting for an hour or more until its breakfast is prepared. A drink of milk, or a thin slice of bread and butter, should be given at once.

Some children will take larger quantities than others at one meal; but, if the meals are made very large, their number must be reduced in proportion. Many children between twelve and eighteen months old, will be found to do well upon only three meals a day, as in the following:

DIET 9.

First meal, 8 A. M.

One teaspoonful of baked flour.

One teaspoonful of fine oatmeal.

Three-quarters of a pint to a pint of fresh milk.

A little white sugar.

Second meal, 1 P. M.

The same, with the addition of the yolk of one egg.

Third meal, 5 P. M.

Same as the first.

In this diet the baked flour and the oatmeal are first beaten up till smooth, with four table-spoonfuls of cold water, and then boiled. The milk and sugar is then added, and the mixture is boiled till it thickens.

For the second meal, the yolk of egg is stirred up in the sauce-pan and boiled with the rest.

If the child requires anything early in the morning, or at 11 P. M., he may take a drink of milk, or a thin slice of bread and butter.

A healthy child of a year to eighteen months old, will usually take between two and three pints of milk in the four and twenty hours.

4. FROM EIGHTEEN MONTHS TO TWO YEARS OLD.

DIET 10.

First meal, 7:30 A. M.

A breakfast-cupful of new milk.

A rusk or a good slice of stale bread.

Second meal, 11 A. M.

A cup of milk.

Third meal, 1:30 P. M.

Under-done roast mutton, pounded in a warm mortar, a good tablespoonful.

One well mashed potato moistened with two or three tablespoonfuls of gravy.

For drink, milk and water or toast-water.

Fourth meal, 6 P. M.

A breakfast-cupful of milk.

Bread and butter.

After the age of eighteen months it is well to omit the meal at 11 P. M. A healthy child of eighteen months old should sleep from 6 P. M. to 6 A. M. without waking.

DIET 11.

For a child of the same age.

First meal, 7:30 A. M.

A breakfast-cupful of new milk.

The lightly boiled yolk of one egg.

A thin slice of bread and butter.

Second meal, 11 A. M.

A cup of milk.

Third meal, 1:30 P. M.

A breakfast-cupful of beef tea, a pound of meat to the pint, containing a few well boiled asparagus heads, when in season, or a little thoroughly stewed flower of broccoli.

A good tablespoonful of custard pudding.

Fourth meal, 6 P. M.

A breakfast-cupful of milk.

Bread and butter.

These diets can be given on alternate days.

Between the ages of two and three years the same diets may be continued. Meat can, however, be given every day, and a little well-stewed fruit may be occasionally added.

The morning and evening meals should always consist principally of milk. * * * *

I have transcribed these several diets because they are the most complete and specific of any I am acquainted with. Variations will suggest themselves to the individual practitioner according to his peculiar circumstances. A rigid and intelligent regimen is the best prophylactic against the summer diarrhœa of children.

I will close with a brief mention of some of the medicinal agents that have served me well. First I will say that it is a bad practice to resort at once to mercury. If Dr. Clevenger's theory be true, it is preposterous to do so. When the stools are green, many-colored and slimy, which is a very early symptom of coming trouble, I use, especially in very young children, *camomile*. It not only alters the character of the passages, but allays restlessness and peevishness. It may be given in infusion in doses of half a drachm or drachm,* or in tincture in water in an equivalent dose. When the character of the stools are not readily changed by this means, I sometimes resort to mercury in the form of a trituration of the mild chloride with sugar of milk in doses of one-tenth of a grain or less, two or three times a day, or a trituration of the metal hydrargyrum with sugar in doses equivalent to those of gray powder, upon which it is a decided improvement. On this point Dr. H. G. Piffard, of New York City, has given important testimony. When there is vomiting, in addition to a food consisting of diluted whey with cream, milk and lime water, with cinnamon water and equal parts of veal broth and barley-water, given cold or hot, not tepid. I use wine of ipecac in hourly drop doses, and when vomiting and purging are conjoined, small doses of the tincture of *veratrum album*.† This is a valuable remedy. *Opium* may be used when the diarrhœa is due to simple irritation, but it is, strictly speaking, not a remedy for infants, and if the exigencies of a

*Ringer. Handbook of Therapeutics.

†Ringer's Handbook of Therapeutics, p. 413.

case seem to demand it, it should be used with great caution, and in doses that are stimulating, not narcotic.† Among the astringents I have used *geranium** in infusion, and sometimes increase the astringency by *catechu or kino*, or *red wine*, and in older children continue to use the *mistura creta* of the pharmacopœa.

One observation I would like to add, that polypharmacy in infantile therapeutics should be studiously avoided. Avoid the shot-gun practice and use only the true rifle, which, under a steady eye and hand, is most sure to hit the mark. Therefore I would seldom combine, but use my remedies singly wherever practicable.

TONGA.

BY J. H. EGAN, M. D.,
Pulaski, Tenn.

Three months since, I imported a supply of Tonga from Allen & Hanbury, London, England, and made therefrom a fluid extract of the officinal strength one grain for each minim. Drs. Ringer and Murrell, of London, had both experimented with it, and found that large doses conld be taken with impunity. In several cases half-ounce doses had been given. The result of ten cases of neuralgia had been published, showing a complete and rapid cure in eight, and relief in the other two. This certainly was very encouraging, and the high character of the above named eminent physicians, establishes the truth of the clinical test.

The first case which applied to me for treatment, was a female who had been for the past six years, a martyr to neuralgia. She had frequently before been under my treatment, and had never obtained complete immunity from the pain in the supra orbital region. I prescribed teaspoonful doses of the F. Ex. Tonga, three times daily, and in fifty-eight hours she was entirely relieved for the first time in six years.

Emboldened by my success, I offered a trial to a lady who suffered with neuralgia every month, and whose pain was excruciating during the attack. The same dose was given, and before the fourth was taken absolute relief was experienced.

Neuralgia is a very common disease in this section, and I have, therefore, no difficulty in getting cases for experiment. I have tested it in fourteen cases and obtained prompt results in all but one which, however, obtained more relief than had resulted from any other mode of treatment.

The supply is very limited, and I am unable, at the present time, to furnish information as to whom to apply.

†See Austic's works.

*℞ Infusio. geranii mac., one and one-half ounces.
Infusio. anthemidis flor. (vel matricariae), one and one-half ounces.
Vini. rubr, optim., one ounce.
M. Sig: · Dose, one-half to two teaspoonfuls p. r. n.

SALYCILIC ACID IN COCCYGODYNIA.

BY H. GRADLE.

The uncertainty of the usual therapeutic measures in coccygodynia will justify, I hope, the publication of a single case with a positive result. Moreover, it might cause unnecessary delay, were I to wait for the material since such cases are out of my usual line of practice.

Mr. E., a gentleman of 45 years of age, complained a few days since of pain in the coccygeal region. With but little spontaneous pain, he suffered considerably on seating himself as well as in rising. There was neither any redness nor visible swelling, but much tenderness on pressing upon the coccyx, either from the outside or from the rectum. The patient thought he might have sprained himself in stepping off the cars, but had felt no pain at that time. Believing in the tranmatic origin, I ordered a liniment of chloral hydrate, dissolved in gum camphor.

In a few days, the patient returned, if anything, worse. Finding no lesion to account for the pain, I saw no reason for not calling the trouble coccygodynia, a name that has at least the merit of convenience, although the trouble is said to occur but rarely, if ever in the male. As an experiment, based on a rather general experience with this drug, I ordered one gram of salycilate of sodium every three hours. The following day the pain was gone, after a duration of three weeks. Within these six weeks it has not returned again. It may be well to state, that the patient has neither had rheumatism, nor any history of nervous troubles.

85 Clark St., Chicago.

THE EFFECTS OF COLD WATER BATHING.—Dr. Geo. Johnson (London Lancet) expresses the following opinion: From what I have seen of the effects of cold bathing, I have arrived at the conclusion that more people are injured than benefited by the practice, and I am confident that if the urine of all who paddle about in the sea until they are blue and cold, were tested within a few hours after this immersion it, would be found to be more or less albuminous in a large proportion of cases.

CHIAN TURPENTINE FOR CANCER.—The Medical Record, on the satisfactory results which continue to be reported by Mr. Clay, and on its general trial in the London hospitals, remarks that no one but Mr. Clay has succeeded in getting hold of the right kind of Chian Turpentine.

DR. J. M. G. CARTER, permanent secretary, class of 1880, Chicago Medical College, has permanently located in Grayville, Ill.

CLINICAL REPORTS.

SURGICAL CASES FROM BELLEVUE HOSPITAL.

The following cases from the Surgical records of Bellevue Hospital are related on account of their rarity, rather than with any practical end. They are surgical curiosities—cases in which of course treatment was impossible.

Diaphragmatic Hernia.—The patient, a man of about fifty years, was admitted to the hospital at 9:50 P. M., with a history of having been caught in some belting. He was suffering from shock, and examination showed a compound comminuted fracture of the elbow, the humerus being the bone chiefly involved, and the joint being opened. Under stimulants he rallied fairly, towards morning, when his pulse was full, strong and 108 per minute. His surface was warm, and he was perfectly conscious. This condition was maintained until the afternoon, except that his pulse became a little faster, 112, and somewhat weaker, and his respirations quickened to 28. He complained, but only when questioned of some pain in his left hypochondrium. Examination however failed to reveal anything. In this condition he was etherized and his elbow resected, 1½ inches of the humerus, the head of the radius and the upper end of the ulna to the base of the coronoid process being removed. The arm was placed on an angular splint and the wound dressed open. The condition of the patient remained about the same after as before the operation. Majendier solution of morphine was given gtt. viij. and some whiskey, and the patient said he felt no pain, but was very tired.

During the night, he began to complain of intense pain in his abdomen, his pulse became rapid, but was still fairly strong; the temperature was normal but the respiration rapid. He was conscious and took morphia and whiskey and retained them, while hot compresses were applied across the abdomen.

The pain continued during the night unabated, and about 5 A. M. he he had a severe fit of vomiting. Immediately following this he complained of great dyspnœa and his radial pulse disappeared. Cardiac stimulants were freely administered, but the patient sank continually, and about 6 o'clock died, after a slight convulsion.

Just before the autopsy, a fellow-workman of the patient, who came to the hospital, stated that he had fallen 40 feet through some trap doors and had struck on his abdomen across a shafting.

Autopsy.—There was no external injury, except to the elbow. The abdomen was slightly contracted. There was a large subperitoneal extravasation, which extended throughout the pelvis, up on all the abdominal walls as high as the umbilicus, around the right kidney, and in the under surface of the diaphragm. The peritoneum was also slightly injected. There was some conjestion of the kidneys. The liver was uninjured, but the gall bladder contained blood as well as bile. The stomach, pancreas, spleen, part of the duodenum, and part of the arch of the colon were in the left thorax, having passed through a lacerated wound in the diaphragm, situated to the left of the opening for the esophagus. This opening was two inches in diameter, and with fresh ragged edges. The stomach lay over the pericardium, compressing the right lung and reaching up as high as the third rib. It contained gas and a turbid fluid, with white floating flocueli. The other viscera composing the hernia lay behind and below the stomach. There was no strangulation of the hernia.

It is impossible that this state of affairs could have existed for the whole time from the accident to the hour of death, a period of 33 hours. The explanation offered is, that at the time of the accident, the opening in the diaphragm was made and the cardiac end of the stomach forced through it while the other visceræ were loosened from their attachment. The site of the opening in the diaphragm explains the negative result of the physical examination of his chest made when he complained of pain just before the operation, when he vomited; however, the rest of the stomach and the other visceræ, were thrust through the opening. Immediately following this came, as we might have expected, the dyspnœa and embarrassment of the heart, which finally resulted in paralysis of that organ.

Contre-Coup Fracture of the Skull, with a Contre-Coup Laceration of the Brain.—The patient, a woman of about 30 years, was brought into the hospital, drunk and unconscious. Examination showed a small scalp wound near the posterior inferior angles of the left parietal bone. There was also a bilateral dislocation of the joint which was reduced. The wound in the scalp was enlarged and the skull examined, but no fracture found. The patient was put in the cells to sleep off the effects of the alcohol, and while there had several epileptiform convulsions. When consciousness began to return, she was transferred to the wards. For 36 hours after her removal, she had occasional convulsions affecting the upper extremities only; there was some stertor, and ptosis, and external strabismus of the right eye with dilation of the pupil of that side. The woman was in a state of stupor, and there was retention of the urine. For the next ten days there was a marked, though gradual, improvement. The ptosis and strabismus disappeared, and there was but slight dilation of the pupil. There was no stertor, no paralysis, and the mental condition improved much, although the woman was very dull. This state continued for 3 days. Then the stupidity increased, and the speech was incoherent; the right pupil again dilated, ptosis and strabismus returned, and the patient became again unconscious, so that by the 16th day her condition was the same as when she was admitted, except that there was incontinence of urine instead of re-

tention. There was now noticed a slight right facial paralysis, as well as a slight general paralysis. The respiration became stertorous and slow, the pulse was 80 and full and strong, and the temperature normal. For a couple of days there was again some improvement; and the patient could be aroused slightly if addressed in a very low voice. Following this was a second relapse, the symptoms much increased in severity compared with her former bad states. Fever also set in, and the face became flushed, while the temperature raised to 101. The pupils were now nearly even, but much contracted. The pulse was small and weak. The respiration was stertorous, and sordes collected on the teeth and lips. Unconsciousness was complete and there was still incontinence of urine.

On the 20th day after her admission to the hospital œdema of the lungs developed, and death followed.

Autopsy, 18 hours after death.

There was found a stellate fracture of the skull, on the side opposite the wound of the scalp. It was situated on the anterior and lower portion of the right parietal bone, near the coronal suture, into which one of the arms of the fracture ran. On opening the skull, a large clot was found between the dura mater, covering the whole of the right hemisphere together with much fluid blood. On the under surface of the middle lobe, not corresponding with the seat of the fracture was a spot of softening of the brain-matter. This spot was the size of a silver half-dollar, extended into the brain to the depth of ¼ of an inch, and was of a dark reddish brown color. There were evidences of slight meningitis. The convulutions of both hemispheres, but especially of the right, were somewhat flattened from compression by the clot.

In this case there was both a fracture of the skull and a laceration of the brain by contre-coup. The exact importance of the fracture cannot easily be estimated, the noticable symptoms being wholly due to the laceration. Immediately following the laceration was probably a slight hemorrhage which was partially absorbed during the period of improvement noticed in the clinical history. But at the same time there was progressing a degeneration of the lacerated portion of brain, which was followed by a second and more extensive hemorrhage and eventually by death. The lack of correspondence between the situation of the laceration and that of the fracture is easily explained. The laceration was at a point which seemed nearly diametrically opposite the wound in the scalp. The fracture was in a thin portion of the skull above and anterior to the laceration where the bone was less resistant to such force, that it was exactly over the seat of the injury to the brain.

The American Society of Microscopists will hold their annual meeting at Detroit, August 17, 1880.

SOCIETY REPORTS.

TWELFTH ANNUAL MEETING OF THE MINNESOTA STATE MEDICAL SOCIETY.

Held at Albert Lea, Minn., June 15 *and* 16, 1880.

FIRST DAY.

Dr. A. C. Wedge, of Albert Lea, president, in the chair. The president, in his address, congratulated the members of the society upon the success which had attended their efforts in building up a prominent Medical Society in that State. He referred to the rapid growth in population of the State and the improved facilities which we enjoy for reaching different cities or towns in attending the meetings of the society. He also referred to the value and success of the State Board of Health, and declared it to be an outgrowth of the State Medical Society.

Report on Practical Medicine, by Dr. C. N. Hewitt, chairman of that section.

Dr. Jay Owens, in a paper on *chronic congestion of the upper air passages*, stated his experience that chronic Bright's disease is an occasional cause of this condition, and that while chronic degenerative changes in the pareuchyma of the kidney, does not always cure disease of the mucus membranes of the air passages, yet it will act as an exciting cause when there is present a constitutional tendency to congestion of the mucus membranes, and will increase the severity of the disease when already present. He considers the strumous diathesis as a predisposing cause of the first importance. The treatment should be both constitutional and local. In strumous subjects, cod liver oil, iron, etc. In those cases dependent upon Bright's disease, saline diuretics, iron, cod liver oil, etc. Hot water injections with a post nasal syringe, and gargles are of great value. Mild astringent applications, frequently repeated, are also recommended.

Dr. D. W. Hand, of St. Paul, read a paper on *Diseases of the Tonsils.* He gave the anatomy and physiology of these organs, and said that although we are accustomed to speak of them as glands, they are really a cluster of follicles composed of duplications and involutions of the mucus membranes. In speaking of their diseases he divided them into two general groups, viz., follicular tonsillitis and simple hypertrophy. What is called quinsy is an inflammation, not so much in the parenchyma of the tonsil as of the tissue around and beneath it. The follicular tonsillitis with its thickened pultacious and pearl white or yellow secretion, looks amazingly like diptheria. The enlarged tonsil can be felt behind the angle of the jaw, and is tender to the touch. The distinction between this disease and diphtheria sometimes can only be made by a careful consideration of the history of the case. Follicular tonsillitis is not infectious like diphtheria, yet it is often epidemic

It is closely allied to influenza. Treatment; slightly stimulating washes or sprays are useful. Wet pack to the throat and free doses of tinc. iron is the best treatment. During convalescence quinine is valuable. Burning with caustics or swabbing with different compounds are worse than useless. *Simple hypertrophy of the tonsils*, so common, especially among children, is usually accompanied by induration, dependent upon inflammation due to a fibroid development of the exudation. The strumous diathesis is frequently the cause of this affection. When the tonsil enlarges in a scrofulous subject it causes a profuse catarrh, and this secretion becoming inspissated in the mouths of the crypts, forms the cheesy or chalky plugs so often observed. True ulceration is usually syphilitic. He had seen one man, age 36, who for years had enlarged tonsils, and, upon one of which, a schirrus developed. He died one year after its appearance from exhaustion. Hypertrophy of the tonsils impedes deglutition and breathing, and materially alters the sound of the voice. Deafness sometimes results from pressure against the orifice of the eustachian tubes. When of long standing and hard to the touch, the sooner *excision* is performed the better. Caustics and astringents are of no use whatever. Excision best made with a tonsillotome. It is not necessary to remove the entire tonsils. The benefits from this operation are great and the risks slight. Scarification is often useful.

Dr. Talbot Jones, of St. Paul, reported a case of *empyema*, occurring in the person of a boy age 11 years. No hereditary taint. During last March he received an injury to his left chest. Two weeks following the injury, he experienced a succession of rigors and soon became extremely weak. It was decided to puncture the chest and put in a drainage tube, which was done at the seventh intercostal space, midway between the sturnum and spine. Two quarts of pus were removed. He only allowed the pus to run for a minute at a time, then he plugged the canula for ten minutes, then allowed the pus again to escape for a minute, and so on for about an hour. This was done in order to allow the compressed lung time to expand. Through the drainage tube the cavity of the pleura was washed out twice a day with a 3 per cent solution of carbolic acid. The pus continued to be secreted and escape through the tube, for five months subsequent to the operation. The tube was then withdrawn and the wound in the chest allowed to heal. Under tonics, and a general supporting treatment, the boy recovered, and now continues well, eight months after the withdrawal of the tube.

Dr. Samuel D. Flagg, chairman on nervous diseases, reported and read a paper on diphtheria, which was a report of cases. He gave it as his observation that throat diseases of various forms are specially prevalent during epidemics of diphtheria, declared with Hutchinson that follicular tonsillitis is a near relation of diphtheria, and one from in which it may arise.

Dr. Talbot Jones reported a case of *white cerebral softening with partial hemiplegia.*

Dr. Jones also reported a case of *cirrhosis of the liver with singular nervous phenomena*, and raised the important question whether the cerebral symptoms indicated a separate and distinct disease, entirely independent of the cerrhosis of the liver, or whether the nervous disturbanees were merely a few of the many symptoms of a cirrhotic condition of the liver; the latter standing in the relation of cause, and the several symptoms, that of effect. In this case the nervous symptoms disappeared under treatment.

Dr. D. W. Hand reported an interested case, of *locomotor ataxia.* G. D., aged 48, a saloon keeper, began in the summer of 1875 to experience violent poroxysms of pain in his stomach. Not accompanied by nausea or vomiting. Being a hard drinker the pain was supposed to be gastric irritation. During October, 1875, irregularity of his walk was first noticed. His gait became unsteady and he was unable to stand with his feet close together or to walk in the dark. For two years following this, although able to be about, he continued to grow worse. The pains were now experienced in all parts of the body, but especially in the phalanges of the toes and fingers. The pain was paroxysmally worse, though he was never entirely free from some pain. During the summer of 1878 he became unable to walk, and was confined to his bed most of the time. He had frequent "shaking spells," his arms and legs shaking for hours at a time. There was marked hyperesthesia of the skin. All this time his appetite remained good. His urine flowed freely and he had control of it. In 1879 the symptoms were aggravated and he now suffered intense pain in spite of all treatment. Nitrate of silver, gr. ¼ to ⅓ three times a day, gave some relief. He was worse in the spring of 1880. The shaking now ceased, and the burning of the skin became less severe; but his pains were atrocious and almost constant. Five grains of morphia at a dose would relieve the pain for only one hour. Finally chloroform had to be resorted to and this gave more comfort than all else. All this time his eye-sight remained good and his mind clear. He soon became much emaciated and bed sores formed over the sacrum and hips. Finally, on March 4, his pains seemed to have left him, and he called for no more opiates, took no nourishment, but sat up in bed with widely dilated pupils, gazing into space. On March 5 he died with scarcely a struggle. No autopsy was allowed.

Dr. Emery read a lengthy paper in explanation of the *metric system of weights and measures.*

Dr. E. J. Davis, of Mankato, chairman on gynecology, then made his report.

Dr. D. W. Hand reported the following case of *ovarian tumor:* The tumor pressed down between the rectum and vagina nearly to the perineum. Six ounces of a clear albuminous fluid were drawn off by aspiration, and about as much more came away after

after the withdrawal of the needle. The tumor was *multilocular*. The patient remained comfortable for three days. At this time, while having an action from the bowels, and sitting upright on the vessel, contrary to positive orders, one of the cysts ruptured into the bowel, and there was quite a copious discharge of the same kind of straw colored fluid that had been drawn away with the aspirator. Some of the fluid evidently escaped into the peritoneum, for almost immediately she had a chill, and all the symptoms of peritonitis. Large doses of opium were of no avail; the inflammation soon spread over the entire abdomen, and she died on the fifth day. This was the second case of ovarian cyst presenting through Douglass' *cul de sac*, that had come under his observation.

Dr. E. Phillips, of Minneapolis, reported a case of hystero-epilepsy.

Dr. E. J. Davis, read a paper entitled, "Death from expulsion of a musculo fibroid tumor of the uterus." He first reported this case in the transactions for 1878, but the case has a subsequent history. On Feb. 24, 1879, eleven months after the first operation for removal, he was called upon again by the same lady, and removed a similar tumor, by the method first employed. The tumor was about the same in size, shape, character and location of attachment as the first. Five and a half months from the time of the last appearance, the tumor had reformed, and this also was removed by same method. It was in all respects similar to the other two. An enlargement was then discovered in the hypogastric region. The patient soon began to have pains which were identical to labor-pains, quite severe, and continued until the tumor was expelled and lay between her limbs. This uterine effort caused her great nervous excitement and prostration. Owing to her condition, and it being night, an operation was deferred till morning. In the morning she was still weaker, and she died before noon of that day. A post mortem examination was made towards evening, and we discovered that the pedicle was attached to the fundus uteri. Nothing abnormal with any organ. The tumor weighed five and one-fourth pounds. The two latter tumors attained their growth in five and a half months.

Dr. Daniel Leasure, of St. Paul, read a paper on *post partum hemorrhage*, in which he took the ground that it is a true collapse, owing to sudden failure of innervation in the ganglionic centres following the supreme efforts of parturition, similar to heart failure in certain acute diseases, also arising from faulty innervation by the ganglionic system. Assuming that all the acts of purely organic life are entirely subject to that system of nerves, he argued that any failure of function in an organ, dependent on it for innervation, must necessarily involve a lesion or temporary lapse on the part of that source of innervation, and that the suspension of contractility on the part of the recently emptied uterus, was a consequence of suspension or partial action on the part of the nerve-centres of organic life, and not any fault of the uterus per se. Incidentally, he maintained that pain was no necessary accompaniment of natural labor, and instanced the absence of pain in the labor of the purely wild women as found at the Cape, and in Australia, and also its absence in purely wild animals, and suggested that the advanced development of the cerebro spinal centres in the civilized woman, destroyed or modified the original co-ordination between the two systems of nerves as they existed in the natural wild woman, which accounts for the painful labor in the civilized. Upon this hypothesis he based his treatment of post partum hemorrhage and demonstrated that all applications made to the uterus itself, were in the nature of irritants, such as manipulations of the organ, either through the abdominal parieties, or in the cavity itself, or by applications within the cavity of cold, or hot, or irritant substances which by reflex action, upon the ganglionic centres brought upon a return reflexion of nervous energy that caused the organ to wake up from its lethargy and by contracting close up the open lacunæ of the placental wound. He also instanced cases where death ensued from post partum collapse without the loss of more than the normal quantity of blood, and argued that in these cases the results of the collapse extended to the organs of the circulation and respiration. As remedies, he instanced the usual manipulations and irritants applied to the uterus externally and internally, and advocated the use of vinegar in the cavity as an irritant to provoke reflexion upon the ganglionic centres to reflect *their* action upon the dormant uterus, but beyond all other irritant agents, he advocated the injection of hot water into the uterine cavity. The water should be hot, not warm, and instanced the beneficial results of hot water as a so-called styptic in ordinary tranmatism. The heat is not a styptic in the ordinary sense of the term, but a stimulant to the nervous fibritts in the wound that by reflexion upon the centres of organic life stir them up to cause through the vaso motor nerves the sleeping contractility of the several vessels. But above all other external applications, he advocated the use of the faradic current seat through the main centres or plexuses of the sympathetic system, and the great trunks of that nerve itself and through the uterus. Internally he advocated the use of, and demonstrated a portion, the influence of ergotin and emetin as two known agents that acted specially upon the centres of organic life, and notably upon the vaso motor nerves. These he would give persistently while adopting ordinary or extraordinary efforts by manipulation and irritants. He preferred their hypodemic administration as being more prompt, and suggested the propriety of a dose of ergotin previous to delivery as a prophylactic measure that could do no injury and might ward off a danger, which is at once terrible and frequently encountered.

Dr. A. H. Salisbury, as chairman, made his report on medical jurisprudence.

Dr. Talbot Jones, of St. Paul, presented a paper entitled: "*Case of a patient with organic heart disease attacked and beaten by two men. His death five months after Coroner's inquest. The men arrested, and their subsequent examination before Judge Flint. Interesting medico-legal questions involved.*" This case was briefly reported in a paper by the author which was published in the last number of The Review. It is regretted that we have not space for this more extended paper in full. It will appear in the society's published transactions.

EVENING SESSION.

The evening was devoted to the discussion of diptheria, and to a general interchange of opinion among the members with regard to the etiology, morbid anatomy, prevention and treatment of this disease. Drs. Berry, Davis, Jacoby, Leasure, and Hewitt, taking the most prominent part in the discussion.

SECOND DAY.

Dr. E. J. Abbott, chairman of committee, reported on surgery.

Dr. S. Blood, of Owatonna, reported a case of *amputation of the knee-joint for genile gangrene.* The whole foot was entirely gangrenous to the ankle-joint. The leg was greatly swollen up to the knee, and very painful. Amputation was made through the knee-joint, leaving the patella. On the third or fourth day the patient's appetite returned, and he began to improve. The wound healed completely in five weeks. About this time, for reasons unexplained, his appetite began to fail, and he lost strength and died about ten weeks after the operation.

Dr. B. R. Palmer, of Sauk Centre, gave the following interesting report of a case of traumatic aneurism. The writer ventures the prediction that Dr. Palmer's method will again be heard of. Dr. Palmer says: "I have lately used a method of applying pressure to an artery on any of the limbs, which, so far as I know, is new. It is effectual in controlling the action of the artery and accomplishes its object, without any constriction or pressure of the soft parts, other than the spot to which the pressure is desired. It consists in the application of a broad band of plaster of Paris around the limb, with an aperture in it directly over the part of the artery to which you wish to apply the compress. Through this opening the compress is to be adjusted to the limb, and tightened and fixed in place by an elastic roller, which envelopes the limb outside the plaster shell, and is placed over the projecting portion of the compress, with sufficient tension to check the circulation in the artery to the desired extent. The idea occurred to me in the case of a traumatic aneurism of the femoral artery, in the thigh of a butcher, caused by the accidental plunging of a long, narrow pointed butcher knife into about the middle of the thigh. The patient is a very robust and muscular young man, and the aneurismal tumor, an hour or so after the accident, was very large, about five inches across, and about three inches thick, with pulsation. I immediately applied the plaster of paris band, as before described, using a compress of cork, covered with chamois, and projecting an inch and a half above the surface of the band. This was applied about two inches below the profunda, and the roller of elastic webbing brought around the band and over the projecting compress, tightening it at every turn, until the pulsation at the ham could be no longer felt. The pressure caused very little uneasiness, and was kept up for twenty-four hours, after which time it was removed and pulsation in the tumor did not return. The compress was kept on more lightly applied for three days longer, when the patient, contrary to my advice, returned to the shop. The wound was inflicted on the 25th of April last, and on examination of the leg two weeks since, I found absorption complete, and the patient well."

Dr. F. A. Dunsmoor, of Minneapolis, reported *a case of amputation at the knee-joint occurring in a boy 17 years old.* He received an injury to the knee which immediately became inflamed. The injury occurred Dec. 20, and the amputation was performed Jan. 2. The amputation was made through the knee-joint, the patella being left in, the flaps being a long posterior and short anterior. The wound healed nicely but a short time after, evidences of septemia became apparent, and he died nineteen days after the operation.

Dr. Jas. Davenport, reported a case, where he had operated for stone in the bladder. It was first attempted to grasp the stone, but it could not be grasped in the jaws of the lithotrite. Lithotomy was then performed, the median operation the one decided upon, which was entirely successful.

While in the prairies May, 1870, the patient had received a severe wetting, from which he suffered retention. To relieve himself he passed up his urethra a hollow rood of some kind, a portion of which broke off and entered his bladder, and upon which the phosphatic salts had been deposited.

Dr. Talbot Jones, of St. Paul, read a paper upon membraneous croup. He reported two cases. In one a girl, age three years and two months, trocheotomy was performed. The instant the tube was introduced the breathing became easier, the dyepuoea disappeared. He had the patient placed in a tent the atmosphere of which was saturated with steam. All went well for thirty hours following the operation, but about this time symptoms arose which indicated an extension of inflammation and obstruction below the tube. Shortly after there was a sharp rise in temperature, the symptoms were aggravated, and thirty-eight hours after the operation the child died. It is the doctor's belief that the operation lengthened the child's life about thirty hours.

Dr. F. A. Dunsmoor reported the following interesting case:

Paul A., age seven, about a year before fell from a platform on which he was working to the ground, the distance being seventy feet. It produced partial paraplegia. During the next six months there was

a slight return of both sensation and motion, but he had no control over his urine. Several stones of various size formed in his bladder. One large one had lodged in the canal about one inch in front of the scrotum, and finally sloughed through, and was removed by the patient, leaving a large fistula. A second stone became encysted in the anterior wall of the bladder, and then sloughed through, making its exit just above the pubic arch, and nearly in the median line. Six months before the doctor saw him he had been operated upon for stone by lithotrity. When seen for the first time by the doctor, his urine was constantly dribbling, and was caught in an old leather pouch. He had a long prepuce. The fistula in the urethra was five-eighths of an inch long and of the same width. The entire urethra was a succession of dams and strictures. His buttocks were swollen and doughy. He was taken to the hospital, and a week later the laterial operation for stone was made. The stone removed was phosphatic and weighed seven drachms, and was one and three-fourth inches long and one inch wide.. The patient made a good recovery. About a week after recovery from this operation the doctor began to close the urethra fistula. The edges were made raw and brought together with silver sutures and the fistula closed, but a new one was made by the wire through which the urine flowed instead of going on to the meatus. This little fistula was cauterized, but all to no purpose, the urine continued to flow through it. Finally internal urethratony was made, upon invitation, by Dr. Stone without an anesthetic. All the strictures were completely divided. Next the operation for phymosis was successfully performed. After allowing the patient a short rest, he was taken to a dentist's office, and a sound introduced in his urethra, and a drill (such as is used for boring out caveties in teeth) was pushed through the minute fistula down to the sound. Hair-lip pans were now used to bring the edges together, and the patient put in bed for a week wearing a catheter. The same operation was performed a second time, with the result of a perfect cure.

Dr. R. D. Barber, of Worthington, reported a case of Empyema, occurring in a boy nine years old. The chest was aspirated and twenty ounces of pus drawn off. It accumulated again and was the second time drawn off. A drainage tube was introduced, and the pleural cavity washed out with carbolized water. The pus continued to flow through the tube for a long time, but finally having ceased to flow the tube was withdrawn and the boy was well.

Dr. W. H. Lincoln, of Wabasha, reported a very interesting and uneque case of gastrotomy, a full account of which we hope soon to publish.

Dr. Francis Atwood, of St. Paul, Chairman of Committee on Optholmology and Otology made his report.

Dr. C. H. Lavell, of St. Paul, reported some interesting cases. Among them was one in which he had operated for pterigia, three of the growths were removed from a man aged forty. The case was interesting, not only on account of the unusual size of the growths, but because of the presence of a double growth in one eye. Both the internal tumors impinged on the cornea and were transplanted. The external one was slightly attached to the margin of the cornea, and was dissected off and removed. Result sacisfactory. He also reported a case of dermoid tumor of the sclerotic, of very large size, and partially adherent to the outer edge of the cornea, and by its size interfering with the movement of the eyeball outwards. The eyelids were also prevented from being properly closed. The history of pathology was given, and the tumor was removed by careful dissection from its attachment, and the wound healed without causing any noticeable deformity. The vitality of the eye was illustrated by a case in which he had operated for artificial pupil. The day after the operation the father of the boy took him home, a distance of fourteen miles, in the midst of a snow storm. He was not seen again for two months, when the eye was found to be in good condition, with no trace of iritis, and with the pupil clear.

Dr. Francis Atwood, of St. Paul, reported a number of cases of accident to the eye, in one of which he succeeded in removing a foreign body from within the ball by making an incision into anterior chamber from below. He pointed out the great danger to the sound eye from any injured eye, whether blind or not, in which iridocyclitis is set up, and strongly insisted upon early enucleation in such cases, and not waiting until inflammation was set up in the good eye, as sympathetic inflammation may be readily prevented but seldom cured. As a proof of this statement, he gave a history of a case of sympathetic opthalmia, coming to him four months after injury to one eye, from a gunpowder accident, the second eye already being affected two months, and the patient hopelessly blind.

The officers elected for the ensuing year are Alex. J. Stone, of St. Paul, President; E. J. Davis, of Mankato, first Vice-President; R. G. McMurdy, of Minneapolis, second Vice-President; Dr. J. Vivian, third Vice-President; Dr. C. H. Boardman, Secretary.

The following committees were appointed:

Executive Committee. — E. J. Abbott, St. Paul, Chairman; W. Richerson, E. H. Stockton, G. W. Emery, J. H. Murphy.

Finance.—R. S. McMurdy, of Minneapolis, Chairman; B. Mattocks, R. D. Barber, J. Bedient, Ira Bishop.

Publication.—C. H. Boardman, of St. Paul, Chairman; S. B. Sheardown, A. E. Senkler, S. D. Flagg, C. E. Smith.

Ethics.—C. P. James, of Hastings, Chairman; W. H. Tieford, J. F. Preston, F. McGuire, A. N. Burnham.

Medical Societies.—W. J. Jacoby, of Mankato, Chairman; Harriet E. Preston, H. V. Parry, C. A. Green, G. Stamm.

Necrology.—W. W. Mayo, of Rochester, Chairman; S. C. McCormick, J. Craft, John Kurtz, H. C. Grover.

Clinatology, Epidemics, etc.—Talbot Jones, of St. Paul, Chairman; C. N. Raymond, J. C. Rosser, A. J. Murdock, Chas. Berry.

Practice of Medicine.—S. Blood, of Owatonna, Chairman; W. H. Lincoln, J. C. Burbaker, D. W. Hand, H. S. Hersey.

Surgery.—R. L. Moore, of Spring Valley, Chairman; C. A. Wheaton, T. J. Catlin, D. A. Stewart, C. M. Thompson.

Obstetrics.—P. H. Millard, of Stillwater, Chairman; K. Wakefield, C. H. Robbins, Clara E. Atkinson, F. Rose.

Essayist.—J. E. Bowers, of Rochester; Alternate, T. W. Sheardown.

Gynecology.—Geo. F. French, of Minneapolis, Chairman; Harriet E. Preston, A. P. Rounsevell, R. Parkin, C. F. McComb.

Opthalmology.—D. S. Cummins, of Waseca, Chairman; F. Atwood, B. F. Graham, C. H. Lavell, J. H. James.

Medical Jurisprudence.—C. N. Hewitt, of Red Wing, Chairman; C. E. Damphier, C. K. Bartlett, C. H. Boardman, Franklin Staples.

Materia Medica.—James Davenport, of St. Paul, Chairman; L. B. Sperry, N. K. Whittemore, C. W. Tinker, A. W. Daniels.

Medical Education.—F. A. Dunsmoor, of Minneapolis, Chairman; A. W. Giddings, D. A. Shirley, D. Leasure, John Pearson.

Nervous System.—J. B. McGaughey, of Winona, Chairman; E. F. Horst, C. F. Warren, V. P. Kennedy, E. C. Cross.

Microscopy.—G. W. Wood, of Faribault, Chairman; M. V. Hunt, A. McDonald, A. E. Hutchings, J. C. McMahon.

Orthoepedic Surgery.—E. F. Horst, of St. Paul, Chairman; Edward Bigelow, J. P. Davis, A. Wharton, J. H. Dunn.

Diseases of Children.—L. P. Dodge, of Farmington, Chairman; M. A. Brawley, W. H. Pratt, O. J. Evans, S. T. Armstrong.

The liberal hospitality of the citizens of Albert Lea, and the general success of the meeting will long be remembered.

The Society adjourned to meet at St. Paul, the third Tuesday in June, 1881.

Peritonitis from Swinging.—A case of peritonitis presumably caused by prolonged swinging is noticed in the British Medical Journal for June 12. A girl ten years of age indulged in swinging for an unusual length of time, was taken sick and died. The case became the subject of a coroners inquest; the cause of death was found to be peritonitis, which was attributed by the medical attendants to injury produced by the motion of the legs and body in incessant swinging, and a verdict was rendered in accordance with this testimony.

CORRESPONDENCE.

New York, July 10th, 1880.

The project of establishing a night medical service in the cities of the United States, similar in character to that in operation abroad, which was so ably urged by Henri Nachet, of Paris, in a paper read before various medical societies during the past winter, has met with cordial approbation in medical circles here. The many practical benefits to be secured by the plan of Dr. Nachet, and his testimony to its successful operation in Berlin, St. Petersburg, and Paris, made a very favorable impression upon members of the profession in this city; and measures were taken at once to secure its adoption. The bill which was prepared and presented to the Legislature, having passed and received the signature of the Governor, has just become a law, and the new system is to go into operation at once.

As the plan of Dr. Nachet was fully stated in the columns of the Chicago Medical Gazette, at the time of his visit to Chicago it will only be necessary to remind your readers of its principal features, before mentioning the modification embodied in our new law.

According to the system in vogue in Europe, a list of physicians who are willing to respond to night calls is kept in each police station. Application being made at the station, the physician living nearest to the residence of the patient is notified by an officer and accompanied to the patient. Having attended to the case, the physician makes out a statement of the diagnosis and treatment, and receives a certificate of attendance from the officer, in case the patient is too poor to pay for the service. On presentation of this certificate to the treasurer of the night service fund he is paid for his visit. Any further care of the case is not expected, unless a request to that effect is made by the patient.

The bill just signed by the Governor, places the management of a night service of this description in the hands of the health department of this city, thus affording a guarantee that only those physicians who are in regular standing, and are registered at the Board of Health shall be placed upon the lists, a protection of no small importance to the public. It provides a fund from which the expenses of the service are to be paid at the rate of $3 for each visit, thus securing to the physician an adequate compensation for attendance upon paupers. The amount appropriated to this fund, $3,000, seems smaller than will be required in a city of 1,250.000 population, but it was fixed at the advice of Dr. Nachet, as the result of a series of calculations based on his experience of the needs in Paris and Berlin. It is expected that in most cases the patients will be able to pay for the service. What the actual proportion of those who cannot, will be, must be determined by actual trial of the system.

The limitation of attendance to a single visit, unless otherwise requested by the patient, will prevent any clashing of interests between the night physicians

and the attending practioner of the patient's family.

The system thus elaborated is regarded with favor by both the profession and the press, and has been adopted without opposition. Its practical working will be looked upon with interest, and the results will be duly announced in your colnmns; as it is probable that in case it proves a success, other cities may follow New York in the adoption of the system.

An epidemic of cholera morbus, which occurred about two weeks ago, in the small town of Adams, Mass., had in it enough of the mysterious to have aroused the superstitions of a less scientific age. One night between the hours of eight and twelve, over one thousand persons in a place of six thousand population, were suddenly attacked with severe vomiting and purging, attended with extreme prostration. The physicians of the place were unable to attend more than a fraction of the cases to which they were called, and the greatest consternation prevailed for some hours until treatment could be obtained. Fortunately none of the cases proved fatal, and the disease was arrested in the course of a few days. For some time no adequate explanation could be given, and many theories were offered, among which the most probable seemed to be that of an Irishman who thought it was a just retribution upon the inhabitants for the favor shown by them to the Chinese, who have a large colony in the town, and are employed as factory operatives.

A careful investigation has shown that the epidemic was due to a combination of influences. For a week preceding its outbreak, the weather had been intensely hot. On the day of its occurrence there was a heavy rain, followed by a thick fog which hung over the town all the evening, and was noticed to have a peculiar damp odor. It seemed probable, therefore, that unknown atmospheric influences had produced the epidemic. But while these doubtless entered as a factor in its rapid spread, its real source has been found in the impurity of the water supply. An engineer, by making a map of the town, marking the houses where a case of sickness occurred, and then tracing the course of the waterpipe, found that there was an obvious connection between the water distribution, and the district effected by the epidemic. He further showed that nearly every one attacked who did not habitually use the water from this pipe, had been in the district during the day, and drank of it. The water passes in its course through an old mill-dam, which was found to be full of decaying vegetable matter which gave forth an offensive odor. This was doubtless the source of the poisonous elements which gave rise to the outbreak in the spread of which the peculiar dampness aided. This affords another illustration of the necessity, especially in country towns, of maintaining a supervision of the conditions of the water supply, in order to prevent similar or more fatal epidemics. It might also be made use of by those who believe in the germ theory of epidemic diseases.

REVIEWS.

REYNOLDS' SYSTEM OF MEDICINE. Hartshorne. In three volumes. Price per volume, in cloth, $5; in leather, $6. Volume III. Diseases of the Digestion, Blood-Glandular, Urinary, Reproductive, and Cutaneous Systems. Philadelphia: Henry C. Lea's Son & Co., 1880. Sold only by subscription. J. H. Chambers & Co., 105 Locust Street, St. Louis, Agents for Missouri, Nebraska, Illinois, Texas, Arkansas, Minnesota, Wisconsin, and Iowa.

The third and last volume of the American edition of the great English work on Practice, is now before the profession. In point of excellence it is fully up to its predecessors, and its complexion is, perhaps, even more thoroughly American than theirs. Oversights in the matter of rendering the terms of the British Pharmacopœia into the language of our national standard, which, in the case of the first two volumes are so common and annoying, are, in this one, extremely rare; while the charm of a terse and vigorous style shines equally bright through all. The scope of the book is even more comprehensive than the descriptive announcement above would indicate, for under the head of diseases of the digestive organs, the consideration of trichinia spiralis is included in the section devoted to disease of the blood-glandular organs, the subject of exophthalmic goitre is treated, and in the group of diseases of the reproductive organs appears a comprehensive exposition of gynecology. In view of the accepted views concerning the pathological nature of Graves' disease one might reasonably object to its appearance in the category indicated.

With reference to the general quality of the matter contained in the book, it is only necessary to say that this, like the preceding volumes, consists of a series of monographs on the subjects treated, by Great Britain's greatest men. The names of Basham, Bristowe, Brunton, Curling, Wilson Fox, Graily Hewitt, Balmanno Squire, Sir Henry Thompson, and others of almost equal distinction at the head of the several chapters, is a sufficient guarantee that the instruction is sound and thorough. The work is not, in all respects, fully ahead of the times. In some places the teaching represents the views of ten years ago, and not the present status of the respective subjects. This remark it will be seen, on reading the articles on exophthalmic goitre, and uterine inflammation is fully justified. On the former subject, the chapter by Beigel is extremely readable, and it indicates not only a thorough acquaintance with the clinical features of the disease, but superior descriptive powers, and extensive reading. But when the author locates the primary disturbance in the cervical sympathetic nerves and ganglia, and then exclusively ignoring the possibility of the vasomotor centres of the cord being implicated, and even ignoring the existencc of such centres, he certainly fails to do justice to recent investigations, and to give

due prominence to modern opinions. The sections devoted to prognosis and treatment may be criticised in the same way; they do not fairly represent the present state of knowledge.

Similarly, the reader will get but a very imperfect idea of the views and practice of eminent gynecologists, from the contributions of Graily Hewitt, and W. O. Priestly, and he is even apt to indulge the suspicion that in this department of knowledge the old world is behind the new. The pathology of uterine inflammation as set forth by the last named gentleman, is not apt to be considered by American gynecologists as the best exposition of the subject that is before the profession, while the chapter on therapeutics represents the extraordinary "heroism" of a time gone by. Among the remedies approved by the author in the treatment of chronic endometritis, are such dangerously powerful agents as the stick nitrate of silver, a piece of which may be left to dissolve in the uterine cavity, after the manner of the late Professor Simpson; injections of acid nitrate of mercury into the cavity of the uterus; applications of fuming nitric acid, chromic acid, carbolic acid, etc., to the walls of the fundus, body and cervix; and if then the ordinary measures fail of producing the desired effect, and the patient still survive, the whole interior of the diseased organ may be scraped with a curette, or the cervix may be removed with the ecraseur. Obsolescent names comprehending disorders that are now distinguishable are employed, and diseases which are easily recognized, and methods of treatment which are practiced by all well informed American physicians, and advocated by our most eminent writers, receive no mention. A redeeming feature of this portion of the volume is the prominence which is given to the constitutional treatment of the disorders indicated.

The work on diseases of the skin, by Balmanno Squire, is a useful epitome of this subject. The arbitrary and unscientific classification inaugurated by Willard in the beginning of the century, is adopted by the author with some modifications in preference to more scientific arrangements. In the main, however, this portion of the volume is extremely satisfactory, and full ahead of the times. The remarks on treatment are particularly clear and practical. As a whole this volume compares favorably with the others. Diseases of the kidneys are disposed of by the masterly hand of Roberts, diseases of the rectum and anus, by Curling, and diseases of the stomach and bowels, by Bristowe and Wilson Fay. These are among the most instructive chapters in the book, and and they make it simply indispensable to practitioners. In style, economy of space, clearness and brevity; in comprehensiveness, excellence of description, and practical utility, it is admirable. It is not quite as valuable as it would be, had it been more carefully edited, but as representing the genius of medicine in Great Britain, it should find a place in the library of every practitioner.

BOOKS AND PAMPHLETS.

Talbot Jones, M.D., Professor of Physiology and Diseases of Children, St. Paul Medical College. A Case of Intra-Ovarian Pregnancy with Post-Mortem Examination. From the American Journal of Medical Science, Philadelphia, 1880.

T. H. Buckler, Baltimore, Md. Notes on the relations of Uterine Structure, with surgical remarks and therapeutical suggestions. From the Boston Medical and Surgical Journal.

N. S. Davis, M.D., LL.D., Chicago. An Address on the Nature of the Science and Art of Medicine and their Relations to the Various Important Interests of the People. Delivered before the citizens of Lincoln and the members of the Illinois State Medical Society, May 21, 1879. From Chicago Medical Journal and Examiner, May, 1880.

THE ARMY.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from June 29, 1880, to July 12, 1880.

The following promotions and appointments are published:

Byrne, C. C., major and surgeon, assigned to duty as post surgeon at Angel Island, Cal., relieving Assistant Surgeon Hubbard, S. O. 93, Div. of the Pacific and Department California, July 1, 1880.

Hubbard, Van B., captain and assistant surgeon. Assigned to duty as post surgeon at Alcatraz Island, Cal., S. O. 93, C. S., Div. Pacif. and Dept. Cal.

Brewer, J. W., captain and assistant surgeon. His leave of absence on account of sickness further extended three months on surgeon's certificate of disability. S. O. 142, A. G. O., June 28, 1880.

Bartholf, J. H., captain and assistant surgeon. Assigned to duty at Ft. Coeur d'Alene, Idaho T. S. O. 103, Dept. of the Columbia, June 19, 1880.

Kimball, J. P., captain and assistant surgeon. Granted leave of absence for 21 days. S. O. 63, Dept. of the Platte, July 7, 1880.

Winne, C. K., captain and assistant surgeon. To report in person to commanding general department of the East for assignment to duty. S. O. 148, A. G. O., July 6, 1880.

DeLoffre, A. A., captain and assistant surgeon. Assigned to duty as post surgeon camp on White River, Col. S. O. 144, Dept. of the Missouri, July 5, 1880.

Comegys, E. T., captain and assistant surgeon. Relieved from duty in department of Texas, to proceed to Cincinnati, Ohio, and report arrival there by letter to the surgeon general. S. O. 148, C. S., A. G. O.

Reed, W., captain and assistant surgeon. His leave of absence extended one month. S. O. 146, A. G. O., July 6, 1880.

HEALTH DEPARTMENT, BUREAU OF VITAL STATISTICS.

CONDENSED STATEMENT OF MORTALITY

IN THE CITY OF CHICAGO, FOR THE MONTH OF JUNE, 1880.

Oscar C. DeWolf, M. D., Commissioner of Health. M. K. Gleason, M. D., Registrar of Vital Statistics.

POPULATION JUNE 1, 1880, 503,278.

CLASS I. ZYMOTIC.

ORDER 1—*Miasmatic.*

Cholera—Asiatic	...
Cholera—Infantum	129
Cholera—Morbus	3
Colitas	1
Croup	27
Diarrhœa	15
Dysentery	4
Diphtheria	52
Entero-Colitis	13
Erysipelas	5
Fever—Cerebro Spinal	7
Fever—Congestive	...
Fever—Typho-Malarious	...
Fever—Hectic	...
Fever—Intermittent	...
Fever—Rheumatic	...
Fever—Remittent	2
Fever—Scarlet	30
Fever—Typhoid	9
Fever—Typhus	1
Measles	3
Pyæmia	1
Septicæmia	6
Small Pox	10
Varicella	...
Whooping Cough	6

ORDER 2-*Enthetic or Inoculated.*

Hydrophobia	...
Syphilis—Tertiary	1
Syphilis—Congenital	1

ORDER 3—*Dietetic.*

Alcoholism—Chronic	2
Alcoholism—Mania a potu	2
Inanition	29
Purpura Hæmorrhagica	...

ORDER 4—*Parasitic.*

Aphthæ	1
Hydatids	...
Tænia	...
Trichinosis	...

CLASS II. CONSTITUTIONAL.

ORDER 1—*Diathetic.*

Anæmia	3
Bronchocele	...
Cancer	1
Cancer—Breast	...
Cancer—Rectum	...
Cancer—Liver	1
Cancer—Parotid gland	...
Cancer—Stomach	4
Cancer—Uterus	1
Cancer—Scrotum	...
Cancer—Testicle	...
Cancer—Tongue	1
Marasmus—Senile	7
Marasmus—Infant	5
Rheumatism	7

ORDER 2—*Tubercular.*

Abscess Psoas	...
Gangrene	...
Hydrocephalus	6
Ill Defined	...
Phthisis Pulmonalis	68
Scrofula	2
Tabes Mesenterica	1
Tubercular Bronchitis	...
Tubercular Enteritis	...
Tubercular Laryngitis	...
Tubercular Meningitis	4
Tubercular Nephritis	...

CLASS III. LOCAL.

ORDER 1—*Nervous,*

Atrophy—Brain	...
Apoplexy—Cerebral	7
Apoplexy—Pulmonary	...
Augina Pectoris	1
Basedowi Dis	1
Congestion of Brain	7
Convulsions—Infantile	78
Cerebritis	4
Encephalitis	9
Epilepsy	...
Exhaustion	7
Hemiplegia	...
Inflammation of Brain	...
Laryngismus Stridulus	...
Meningitis	33
Myelitis	3
Paralysis	5
Phrenetis	1
Tetanus	2
Sunstroke	...
Trismus Nascentium	1
Tumor—Brain	1
Prog. Muscular Atrophy	1

ORDER 2—*Circulatory.*

Aneurism—Pul. Artery	1
Aneurism—Thoracic Artery	...
Dropsy General	2
Dropsy of Heart	1
Embolism Cerebral	...
Embolism	...
Fatty Degeneration of Heart	...
Hypertrophy of Heart	1
Heart, Organic dis	12
Heart, Rheumatism of	...
Pericarditis	...
Valvular Disease of Heart	9
Endocarditis	...

ORDER 3—*Respiratory.*

Abcess—Lungs	1
Asphyxia	1
Asthma	2
Bronchitis	17
" Capillary	3
Broncho-pneumonia	4
Emphysema	...
Pleuritis	1
Congestion of Lungs	7
Laryngitis	...
Oedema Lungs	3
Oedema Glottidis	...
Pneumonia	34
Pleuro-pneumonia	...
Hæmoptysis	...
Influenza	...

ORDER 4—*Digestive.*

Abscess—Liver	...
Bowels—Invagination	...
Cirrhosis of Liver	1
Colica Convulsiva	...
Dyspepsia	3
Enteritis	20
Fatty Degeneration of Liver	...
Gastro-Enteritis	14
Gastritis	8
Hemorrhoids	...
Hepatitis	2
Hypertrophy—Liver	...
Icterus	...
Peritonitis	8
Scurvy	1
Typhlitis	2
Ulceration of Stomach	...
" Bowels	...

ORDER 5—*Urinary.*

Congestion—Kidney	...
Albuminuria	10
Diabetes Mellitus	...
Nephritis	1
Cystitis	...
Uræmia	5
Strictura—Urethræ	...

ORDER 6—*Generative.*

Cellulitis Pelvic	...
Metritis	...
Metro-Peritonitis	...
Rupture—Uterus	1
Uterine Tumor	...
Uterine Hemorrhage	...

ORDER 7—*Locomotory, Osseous.*

Abcess—Frontal Sinus	1
Otitis	...
Necrosis	...
Rachitis	...
Spina Bifida	1
Spine; Pott's Dis	...

ORDER 8—*Locomotory, Integumentary.*

Carbuncle	...
Eczema	...
Lupus	...
Sclerema	...
Adenitis	...

CLASS IV. DEVELOPMENTAL.

ORDER 1—*Children.*

Atelectasis Pulmonum	2
Atresia Ani	...
Congenital Deformity	...
Cyanosis	2
Debility—Infantile	6
Dentition—Difficult	6
Hemorrhage Umbilical	1
Icterus Neonatorum	1
Umbilical Hernia-Cong'nit'l	1

ORDER 2—*Women.*

Miscarriage	1
Abortion	...
Hemorrhage, Post-Partum	...
Leucocythemia	...
Mastitis—Acute	...
Placenta Prævia	...
Phlegmasia Dolens	...
Pregnancy—Albumin'a	...
Pregnancy—Uræmia	...
Pregnancy—Vomiting	...
Puerperal Convulsions	1
Puerperal Mania	...
Puerperal Metritis	...
Puerperal Peritonitis	1
Puerperal Septicæmia	...
Tedious Labor	1

ORDER 3—*Old Age.*

Debility—Senile	6
Gangrene—Senile	...

ORDER 4—*Nutrition.*

Asthenia	...
Atrophy	1

CLASS V—VIOLENCE

ORDER 1—*Accident.*

Crushed	1
Dragged by Horse	1
Drowning	8
Explosion	1
Fracture of Skull	...
Fracture of Spine	...
Gun Shot	...
Suffocation	1
Concussion--Brain	2
Chloroform—in Surg. Op	...
Lightning	...
Hemorrhage	...
Scalding	1
Shock from R R Accident	6
" " Street Car "	...
" " Surg. Operation	1
Sunstroke	6
Wound by fall	6

ORDER 2—*Homicide.*

Homicide by Shooting	...
Infanticide by	...
Manslaughter	...
Murder	...

ORDER 3—*Suicide.*

Cutting Throat	1
Drowning	1
Gun Shot	1
Hanging	2
Poisoning by Laudanum	1
Poisoning by Morphine	...
Poisoning by Strychnia	...
Unknown	3
Deaths	884

PREMATURE BIRTHS, 13. STILL BIRTHS, 51.

AGES.

Under 5 years	544	From 50 to 60 "	36
" 1 year	371	" 60 to 70 "	20
From 1 to 2 years	89	" 70 to 80 "	17
" 2 to 3 "	36	From 80 to 90 years	7
" 3 to 4 "	29	" 90 to 100 "	1
" 4 to 5 "	19	100 years and upwards	0
" 5 to 10 "	54	Unknown	3
" 10 to 20 years	33	Total	884
" 20 to 30 "	53		
" 30 to 40 "	60		
" 40 to 50 "	51		

WARDS.

1st Ward	11	12th Ward	24
2d "	21	13th "	37
3d "	8	14th "	148
4th "	32	15th "	47
5th "	74	16th "	39
6th "	71	17th "	51
7th "	56	18th "	20
8th "	53	Public Institutions	64
9th "	31	Deaths by Violence	42
10th "	37	Unknown	0
11th "	18	Total	884

COMPARATIVE MONTHLY MORTALITY.

Mortality, June, 1878	453
" June, 1879	639
" May, 1880	756
" June, 1880	884

1.760 deaths in 1,000.
Annual rate, per 1,000, 21.12

Chicago Medical Review

PUBLISHED ON THE FIFTH AND TWENTIETH OF THE MONTH.

E. C. DUDLEY, EDITOR.

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CHANDLER & ENGELHARD, Publishers.

EDITORIAL OFFICE, 70 MONROE ST. BUSINESS OFFICE, 60 WABASH AVE.

VOL. II. No. 3 CHICAGO, AUG. 5, 1880. $2.00 A YEAR.

DOES VIVISECTION PAY? is the title of an article in the June number of Scribner's. The author, Dr. Leffingwell reviews the subject with an attempt at impartiality, and, while not denying the scientific fruits of physiological methods, thinks it best to have legislative restriction for vivisection. Some of his premises, however, are extremely one-sided. The main one of these fallacies is the statement that although vivisection is indispensable to physiology, it has as yet yielded no results in practical therapeutics. We deem it superfluous here to repeat to medical readers the trite truth, that scientific medical practice is but the application of physiological knowledge in its widest sense; that curative attempts of which we do not understand the rationale, are but empiricism. It is true that it is somewhat difficult to state in few words what remedial means are the direct outcome of physiological research. Definite statements in this respect can be made only by one familiar with the history of medical thought, of which familiarity we find no evidence in the article in question Many instances of therapeutic action of the gravest importance, although not the direct consequence of any one set of experiments, could only be conceived after the ground had been prepared by researches on various kindred subjects, and by various experimenters. Many a prescription of undoubted value that may seem to us self-evident, would never have occurred to a previous generation of more limited physiological education. The connection between numerous physiological researches and therapeutic results to which they led, cannot be represented by a chain, the links of which form a single row, but rather by an intricate net-work, the threads of which require careful inspection in order to be followed. The use of electricity, the improved methods of artificial feeding, the antipyretic treatment of fevers, as well as countless details of hygienic management, are but the expressions of a progress in medical thought due to physiological research. But we can fortunately cite also numerous remedial procedures based directly and visibly on physoiological experiments. Those not blinded by envy or prejudice cannot but admit the surgical reform due to Lister's dressing as a blessing second only in importance to the discovery of anesthesia. But Lister stands only upon the shoulders of Pasteur, Weber, Billroth and other experimenters. The removal of a diseased kidney would and should not have been dared until after the demonstration of its harmlessness upon animals. Poisoning by carbolic acid, the dread of which has often been an obstacle to its free use for antiseptic purposes, has been deprived of its terrors since we have learned from experiments upon animals that sulphuric acid is the positive antidote. The introduction of chloral, of nitrite of amyl, and many other potent agents we owe to experiments, as well as the more rational use of drugs long since known, but imperfectly applied, like digitalis, strychnine and others. Not the least fruit of vivisection is also the abolition of many useless if not harmful measures once in vogue. A second fallacy of Dr. Leffingwell consists in underrating the value of class experiments. He admits that their teaching is infinitely superior to mere words, but thinks that none but original experiments ought to be performed without anæsthesia. We also want to see prudence exercised in not reproducing cruel experiments before a class without sufficient purpose. But we cannot at all agree with the author, if he claims that the word of the teacher would and should be be-

lieved without proof. We have long been of the opinion that the want of judicious scepticism, so painfully felt in American medical literature, is a fault of the American college system, a fault to be counteracted by encouraging the student to disregard authority, and to be content with naught but tangible proof. Were the author more mindful of this truth, he would have tried to assert his position more by argument than by quotations from a certain number of physiologists. While the reviewer prides himself on his familiarity with physiological literature, he is forced to confess that he has never seen the names of those authorities in connection with any researches in physiology. In thus disagreeing with the author, as to his premises, we certainly cannot share his ideas regarding the restriction of research. It is to be regretted that abuses can and do occur, but the lover of the animal creation may exert himself in many a more useful direction in the abatement of cruelties. After all, the number of creatures perhaps uselessly or viciously sacrificed in the alleged name of science is incomparably small when placed side by side with the victims of man's cruel passions or even indifference. At any rate, the executor of a law is out of place when not directed by the judge, and in the matter of physiological experiments none can be judges but experts. If we recall the obstacles thrown in the way of physiological research in England, we have all reason to fear any similar attempts at legislative interference in this country of arbitrary juries and artful manipulation of law.

Ballast in Pathological Literature.—Our readers are probably all of them familiar with the fundamental difference that exists between a student in the true scholastic sense of that term, and the automatic organisms which are annually turned out in large numbers from those of our institutions whose examinations are of a character to favor the parallel existence of a "cram-quizz," run by the faculty, as a profitable side-show to the college proper. Somewhat analogous to this difference is that existing between the genuine scientific investigator, and the rabble of over-prolific writers, whose so-called results are based on the researches which they are permitted to conduct in European laboratories. The ambition to write and to be handed down to posterity as an author is a natural one, and as long as archives and other periodicals are started in such numbers as they now are, and are compelled to struggle fiercely with each other for material to fill their pages, printers' ink and paper will be found to gratify this vanity. Probably one out of ten of the monographs appearing in our anatomical, physiological and pathological quarterlies, constitutes a substantial contribution to science, and probably not more than twenty-five per cent. manifest any originality in treatment even. The remainder may be safely reckoned as ballast. Some of those engaged in the manufacture of this latter article, recognizing that it is difficult to wake the reading medical public from the lethargy into which the mass of monotonous compilations is apt to throw them, unless something startling is exhibited as the result of their own work, occasionally resort to a harmless little paradox to satisfy the latter indication. Whether this was the motive power in the case of a recent writer in the Journal of Anatomy and Physiology, who asserts that in cirrhosis of the liver, contrary to general pathological laws, and in direct antagonism with the results of judicious and conscientious pathologists, the cirrhotic tissue is the result of a direct metamorphosis of the liver cells into connective tissue elements, is a question; but such assertions based on such a slender basis as this author had evolved, certainly justify the suspicion expressed above. And when in addition to this, the gentleman ventures to present, as an original conjecture, what has been an established fact for a decade, that the liver is derived from the middle and not from the lower germ layer, he examples another feature characteristic of the ballast of our historical and pathological literature, namely, that of presenting as new what is old in science, though possibly new to the writer.

A Receiving Hospital in Chicago.—No part of the city furnishes more patients than does that part which lies within a radius of a half mile from the Madison Street bridge, and yet no part is more difficult of access to the hospitals. Almost constantly cases arise in this vicinity which need immediate medical or surgical attendance, but, which, owing to the location of the various hospitals, must be transported from one to three miles, with all the delay and rough handling usual to such transportation, before they can receive proper attention. Wounded men may suffer from dangerous or fatal hemorrhage, or from shock, cases of sunstroke may, and do terminate fatally during their transportation to a hospital. It is self-evident that a receiving hospital in the business part of the city has long been a necessity. It is likewise evident that the city authorities, in their failure to establish such a hospital, are culpably negligent. Such an institution is demanded, not only by the paupers of the city, but even more by its influential, intelligent and wealthy citizens, who are constantly exposed to sunstroke, to wounds, and to prostration in various forms, and whose lives, under the present derangement, must be

placed in jeopardy before they can receive the attention which the municipality is bound to give them. Such a hospital should be located in the vicinity of Clark and Madison Streets, should have a limited number of beds, with facilities for expansion in emergencies. An ambulance surgeon should always be in attendance, who should determine upon the propriety, and upon the time of transporting patients to other hospitals, or to their homes. Even though the expense involved in such an institution were large, there would then be no excuse for its absence, but the slight expense which it would necessitate places the authorities in the attitude of almost wilful negligence.

A New Idea About Recurring Gonorhœa.—Dr. H. C. Howard, of Champaign, Illinois, has recently had a series of cases in which gonorrhœa had been communicated by the husband to the wife, and cured in both, but repeatedly returned in the case of the husband, although he had not been improperly exposed. Careful examination of the female showed that the disease had persisted in the little glands of the female urethra, first described by Dr. A. J. C. Skene, of Brooklyn, (American Journal of Obstetrics, April, 1880), and fully noticed editorially in the Chicago Medical Gazette, May 5, 1880. Dr. Howard, believing that these little glands were continuing to pour out true gonorrhœal pus, although the patient presented no other evidence of the disease, and that this pus had produced recurrent gonorrhœa in the male, directed his treatment to them, which consisted in the application of carbolic acid crystals. In each case the discharge disappeared permanently under this treatment, and the disease in the male now having been cured, did not return. Dr. Skene, in his original paper, expresses the opinion that in the cases which he had observed, the inflammation was caused by gonorrhœa, which persisted in the glands long after the original trace of the disease had disappeared. Dr. Howard seems to have been the first to note this condition as a cause of gonorrhœa recurring as often as cured in the male. His observation is important as showing that the female may communicate the disease long after it would previously have been pronounced cured.

Tuberculosis of the Joints.—Dr. Chr. Fenger, in conjunction with Dr. E. W. Lee, of the Cook County Hospital staff, has recently published, in the Chicago Medical Journal and Examiner, (reprinted in pamphlet form) a paper reviewing the subject of arthritic tuberculosis. After giving a short historical resume of the literature of miliary tubercle down to Köster's discovery, that to this formation is due the various forms of joint disease known as white swelling, caries, tumor albus, etc., and the consequent necessary modification of our views as to the prognosis of this form of morbid growth, they give a description of the microscopic characters and general progress of miliary tubercle. Then follows the pathology of tuberculous joint disease under three heads: Primary osteo-tuberculosis in the epiphyses near the articular surfaces; tuberculous arthritis; primary tuberculous synovitis. These are thoroughly discussed and illustrated from cases of their own observation, with some rather intelligible wood cuts. The symptoms, complications, etc., are left to be described in future clinical reports of cases. If, as seems to be indicated by recent investigations, the great majority of cases of fungous arthritis are connected with miliary tubercle, then the percentage of recoveries in these cases would render it necessary for us to modify our views as to the malignancy of this form of tuberculosis. Our authors point out, however, from a case in their own practice, that an apparent recovery may continue for years, and yet there may remain a latent local tuberculosis that may finally develop the fatal disease. The suggestiveness of these facts, as respects the surgical treatment of joint troubles, is very great, but the authors leave these aspects of the subject mainly for further consideration in the future. The paper is well worth perusal.

Surgical Treatment of Empyema.—The Lancet, May 22, 1880, contains the following abstract of a paper in the Birmingham Medical Review, by Mr. William Thomas, on resection of the ribs in empyema. Mr. Thomas' success in this operation has been marked; of nine cases, all children, four recovered with expansion of the lung and restoration of the excised rib, in three cases all discharge has ceased, and the lungs are in various stages of expansion; another case is doing well, and the ninth, moribund when operated upon, died in six hours from asthenia. The object of the operation is to allow full retraction of the ribs and efficient drainage of the pleural cavity. It is of course obvious, but yet not always borne in mind that an empyema can never be cured unless the cavity of the pleura is obliterated by the expansion of the lung, the displacement of viscera, or the falling-in of the chest-wall, or all of these together. But only when the lung expands to its former size have we any right to speak of a "cure" having been accomplished; in the other cases recovery may have resulted, but the patient is sadly crippled, having a much diminished breathing power. We cannot keep this consideration too constantly and clearly in view; it is not enough to save the life in such cases, we ought also to save the lungs; and it is as much a

stigma on surgery to allow a patient to recover with a collapsed, useless lung, as to permit anchylosis of the hip to occur in a false position. This is not a mere quibble, for the want of a clear perception of this point leads to errors in practice, which have very disastrous results; patients with pleuritic effusion are left alone so long as no serious symptoms arise; there is a long delay before the fluid is withdrawn, and meanwhile the lung is being compressed and possibly bound down, so that it can never fully expand again. We know that of late years paracentesis thoracis has become much more generally adopted and employed at an earlier period in the disease than formerly, but we want still further progress in the same direction. The main issue to consider in any case of pleurisy is the injury to the lung, and recovery with a damaged lung ought never to be looked upon as a satisfactory termination to a case. There is no period in the disease after effusion has taken place, too early for aspiration of the inflamed pleura; there is no consideration more pressing than the speedy removal of the force compressing the lung. These being our views, we look upon such an operation as resection of the ribs, as evidence of failure in the earlier treatment of the case. The removal of a portion of a rib allows freer drainage than can otherwise be obtained, and no doubt permits of a more complete recession of the chest-walls than is otherwise possible, and the bone is eventually reproduced; but we must again repeat that recourse to it is an admission of failure to obtain a "cure," the effect of which is in many cases as disastrous as the saving of a life at the expense of a limb.

Human Endurance.—The case of Dr. Tanner, which has excited so much interest among the laity, but which is hardly satisfactory in a medical point of view, as an illustration of human capacity for prolonged abstinence, is nearly equalled by a report that comes from Japan, in a letter to the Boston Medical and Surgical Journal. Dr. J. C. Cutter, physician to Kaitakushi, Sappow, Japan, a graduate of Harvard Medical School, reports a case of a Japanese boy fifteen years of age, who with two older companions lost his way, March 22, 1880, in a snow storm in one of the forests of Yesso. They had but a couple of handfuls of cold boiled rice apiece, with a little relish, for provisions, which were all eaten in the first four days. On the 19th of April this youngest boy was found still living after twenty-eight days exposure, his two companions were dead. When found he was speechless, pulseless, and scarcely conscious. His legs were dead, the whole body extremely emaciated. Under treatment he slowly but steadily recovered. During the time of this exposure, when for twenty-four days he had nothing to eat, and subsisted solely on water and the waste of his tissues; the weather was cold; on six of the days it snowed, on five it rained, and very few days were pleasant and mild. The average temperature was 37°F. The boy himself was of only average stature and weight of his class, (about 5 feet 2 inches in height, 105 or 110 pounds weight), and had been inured to daily labor and exposure. The case is, as the doctor says, of interest, "as showing the length of time during which existence can be maintained if water alone be taken," and is not open to some of the suspicions that cannot be entirely relieved in the case of Dr. Tanner.

Dr. Tanner's Case, as our New York correspondent states, is practically without any scientific interest whatever, in a medical point of view, he having refused to put himself in the hands of competent observers, and his present watchers not being such as can receive the fullest confidence of the scientific world. Whether he succeeds or not in his task, if he survives it, will be a matter of opinion varying according to the faith the holder may have in the doctor and his surroundings. But if he does not survive the experiment, there arises a question of some little medico-legal interest, how far are persons free from blame who have allowed a man deliberately to starve himself under their eyes, simply to show how long he could survive without food? The daily bulletins of his condition, the constant visiting, and all the other evidences of public interest, are likely to encourage a half-cracked theorist to persist in taxing his endurance to the utmost, and to suppress or conceal every symptom of failure that might be a warning to those about him to bring the trial to a close. If there is any real value in such an experiment, it should be conducted by physiologists in whom the world has confidence. Every phase and change of the physical condition should be noted, with the use of all the appliances known to science, and it should be brought to a close before the actual danger point was reached, or the law should interfere. In the present case some of these conditions are not fulfilled. There is nothing that would confirm our belief in the genuineness of Dr. Tanner's fast so much as his death, which, though unfortunate for him, and for those who have surrounded and abetted him in his undertaking, ought to have a healthy influence upon all of those irresponsible enthusiasts of the class to which he belongs.

Dr. Bartholow's Prescription for Asthma.—Iodide of potassium, 15 grains; bromide of potassium, 20 grains; to be taken every four to six hours.

Mercurial Treatment in Syphilis, and when to Stop it.—Dr. Keyes is most partial to the proto-iodide of mercury in one-sixth grain doses. Commencing with one granule three times a day, he gradually increases the dose until an attack of diarrhœa is produced, with pain in the intestines, or in mercurial fetor in the breath, or until a livid hue becomes faintly visible along the edge of the gums, or until the teeth themselves become a little sensitive on being snapped sharply together, or until the saliva flows more freely. When either of the above symptoms occur, the patient has reached the full dose, a dose which he may continue to take with the aid of selected, food and of a little opium in most cases, without becoming salivated. This is not the tonic dose. If continued, the patient suffers in the quality of blood, and in the diminution of his physical powers. This is the specific dose, and fully exerts the antagonistic influence to syphilis. This full dose, the size of which varies in different individuals, may be continued during the active manifestations of the disease. When these decline, it should be substituted for one-half the amount, which is the tonic dose, and which may be continued steadily without injury during several years. Dr. Keyes, however, uses one-sixth instead of one-half the full dose, and continues this for from two and one-half to three and one-half years, or during six months, or, better still, a year after the last manifestation of the disease.

Treatment of Simple Bubo.—Dr. Keyes (Venereal Diseases) advocates the following: From the moment a slight stiffness in the groin is felt, perfect rest in bed should be insisted upon, or, at least, the patient should be kept off his feet as much as possible. The diet should be mild, and stimulants should be avoided. A laxative is often indicated. The chancroid should be cauterized at once if suitable for that treatment. In this way the bubo may be saved from becoming virulent. If the patient be full-blooded, bitter-water may be given every morning. Avoid leeches and all counter-irritants and vesicants, as these are liable to create a surface for specific ulceration. In case the bubo prove virulent in the earlier stage, iodine and all ointments do more harm than good. An application to the skin over the inflamed gland, of equal parts of tincture of aconite root and tincture of belladonna, made several times a day, is frequently of use. This application, if irritating, should be diluted with water. Cold applications are useful. Avoid heat unless suppuration be anticipated. If the bubo has slowly advanced, it is not virulent and the pus may, in some instances, be absorbed. Employ rest and slight pressure constantly applied to the gland. The local use of the compound tincture of iodine and water, equal parts, is, under these circumstances, of value. If the abscess makes the skin tense, and its history proves it to be non-virulent, it may be evacuated by a fine aspiration needle thrust obliquely into the cavity of the abscess. By these means, with good food, cod liver oil and tonics, a bubo which has suppurated, may sometimes be absorbed, and the scar may be avoided. When the abscess forms rapidly, a poultice may be applied, suppuration hastened, and a free opening promptly made. If the bubo has been simple, the cavity fills and heals rapidly, if virulent, the cavity becomes chancroidal and requires treatment as such.

Hygiene of the Mouth in Syphilis.—Dr. E. L. Keyes (Venereal Diseases) says that on account of the necessity of giving mercury, and of the danger of salivation, lesions of the mouth and throat, which are very obstinate in this disease, should be avoided so far as possible, by cleanliness of the mouth and freedom from irritants. Before the mercurial course is commenced let the teeth be put in order by a dentist; let all tartar be removed, old stumps extracted; let any sharp angles of the teeth likely to come in contact with the tongue be filed away. Any reaccumulation of tartar during the progress of treatment should be removed. Let a soft tooth brush be used. The tooth-brush or powder should be strongly alkaline and slightly astringent. A half-teaspoonful of bicarbonate of soda and a teaspoonful of the tincture of myrrh, in a glass of water, or white castile soap and water, or a weak solution of alum in water make excellent tooth-washes. With such care mucous patches become less annoying and easier to manage, and the effect of the mercury may be more closely watched, since one is not apt to be misinformed as to the cause if the edges of the gums become soft and tender. Smoking is also entirely contra-indicated during the first year or two of syphilis, as it is apt to induce a greater number of mucous patches and mouth lesions than would otherwise occur. Tobacco-chewing is equally bad, or worse. Highly spiced or stimulating food may help to keep the mouth tender, and should therefore be avoided. A pipe is a dangerous thing in syphilis, owing to the risk of infection, if it is used by healthy persons, because the secretions of mucous patches and syphilitic ulcers in the mouth are specially contagious.

Hygiene of the Genitals and Anus in Syphilis is very important. These parts, says Dr. Keyes, in "Venereal Diseases" in both sexes should be kept scrupulously clean and dry, otherwise mucous patches

and condylomata, excoriations and ulcerations are to be looked for. Should there be any tendency to moisture about these parts externally, they may be dusted with dry powders, lycopodium, starch, bismuth, with or without a little calomel. Moisture beneath the prepuce may be kept in check by the insertion of a thin layer of absorbent cotton or of prepared lint beneath it twice a day, after it has been washed. It is well in all cases, if possible, to have the patient wash the anus with soap and water after each action of the bowels. The umbilicus, also, in fat people, and the skin under the breasts in fat women, require frequent washing, drying and dusting, to preserve the parts in good condition during the eruptive period.

Salicylic Acid in Acute Rheumatism.—The Medical Times and Gazette, June 25, 1880, translates the conclusions of a paper by Dr. von Bokkenheuser, which is published in a late number of the Nordiskt Mediciniskt Arkiv:

I. Salicylic acid is a specific against acute, febrile, articular rheumatism.

II. Its essential properties consist in the power it possesses of causing the affections of the joints to disappear and the fever to yield within some few days.

III. This result is effected with equal facility in patients of different sexes and ages; at the same time the effect is the more speedy and complete the earlier in the disease the patients come under treatment.

IV. Salicylic acid is not capable in any special degree of cutting short the disease, but it alters its character in such a way that the patients, after the lapse of the first few days, do so well that they no longer feel themselves ill.

V. The treatment with salicylic acid does not always prevent a relapse, even if an "after-cure" is employed; but, as a rule, such a relapse can be brought to yield again in a very short time.

VI. It is possible, and even probable, that the treatment with salicylic acid is often capable of preventing the outbreak of acute affections of the heart and lungs, and it is certain that these, when they do arise, pass off in a milder way than they otherwise usually do. In particular it may be laid down that this treatment almost excludes the occurrence of an attack of pleuritis.

VII. Salicylic acid is capable of stopping, in the course of a few days, an acute exarcerbation of a chronic, articular rheumatism.

VIII. Against mon-articular pains salicylic acid is ineffective.

IX. It likewise appears to be ineffective against attacks of a febrile, acute, articular rheumatism, even when these are of a poly-articular and wandering nature.

X. Against rheumatic hyperpyrexia salicylic acid has no effect.

XI. In the case of a very few patients there seems to be such an immunity against salicylic acid that it produces no effect upon them.

XII. The treatment with salicylic acid does not exclude all other methods of treatment, such, for example, as the use of baths, protective bandages and the like.

XIII. No definite contra-indication to the use of salicylic acid seems to exist; but sometimes circumstances may require us to discontinue the medicine either for a time or altogether.

Transparent Cysts of the Eyelid.—Dr. Yvert (Recuei d'Ophthalmologie, February, 1880), gives the following conclusions, which are taken from the London Medical Record, April 15, 1880: I. A peculiar form of cystic tumor occurs on the eyelids, but it is decidedly rare; it seldom attains the size of a bean and always contains a perfectly limpid fluid II. The most striking and constant symptom in these tumors is their transparency. III. They have nothing in common with hydatid cysts, and are totally distinct from them. IV. Their point of origin is not, as might be supposed, in the sudoriparous glands, but the sebaceous follicles, the hypertrophied walls of which secrete a serous fluid. V. The best treatment consists in the excision of a portion of the follicle, and cauterization of the fundus of the cul-de-sac with a crayon of nitrate of silver.

The True Nature of the Pain in Angina.—One of the most constant symptomatic features in the various inflammatory affections of the throat, is pain situated at the upper part of the soft palate, and external to the origin of the anterior pillar of the fauces. The explanation of this pain is to be sought for in the anatomical relations. Immediately under the area in question, the mucosa is in anatomical continuity with the periosteum, covering the hamular process, as well as with the pterygomandibular ligament. This ligament being naturally tense, the increased tension produced by a participation through contiguity, in the inflammatory process, naturally produces that sharp pain which the patient is apt to describe as combined with a feeling of tension. The pain is increased when the mouth is opened, as then the tension is increased.

France had in 1876, 40 doctors to each 100,000 people; in 1846, 51 to each 100,000.

Ulceration of the Palate in Children.—At the lateral extremes of the line at which the hard palate merges into the soft, there is a spot which one can easily localize on one's own person where the hamular process of the pterygoid plate is distinctly felt. This point cannot be recognized by the eye, as the mucous membrane is thick and conceals the prominent bony process. But in the infant the situation of the hamulus is distinguishable by a whitish point, due to the thinness and consequent slighter vascularity of the mucous membrane at this point. The wider the infant opens its mouth, the more distinct the prominence and the paling become, for the simple reason that the soft parts are put on the stretch over the bone. Now, according to observations quoted by Epstein, and confirmed by himself, this is an important area pathologically considered. When the post natal desquamation of the oral epithelium takes place, this locality, owing to its attenuation and slighter vascularity, and probably also to attrition in suckling, is apt to become eroded. This is of slight moment in the vast majority of children, but in the cachectic and ill-fed the erosion may lead to veritable ulceration, and the resulting ulcers form a favorable soil for the proliferation of the micrococci, which, even in the normal saliva, are found in minimal quantities. Thus a road to septic infection of the entire infantile organism may become established.

Contracted Kidney the Result of a Ganglionic Disturbance.—Many a laboriously conducted series of researches is undertaken every day, and is destined to remain barren of any real result, simply because the observer falls into that common error of blindly following the post hoc ergo propter hoc style of argumentation. The distinguished diagnostician of Philadelphia, Da Costa, together with Longstreth, of the same city, have examined the renal sympathetic ganglia in a large number of subjects dying with affections of the kidneys. They found that, especially in those subjects in whom contracted kidney was discovered, these ganglia were intensely degenerated through a connective tissue hypertrophy. They straightway proceed to claim that a nervous disturbance is the predisposing factor in the etiology of contracted kidney! Nothing could be more faulty. The subjects of contracted kidney reaching the autopsy table are usually far advanced in the last stages of the disease, and the question would, if nothing further were known on this subject, still remain an open one, as to which of the two processes the ganglionic or the renal sclerosis had preceded the other in point of time. But, fortunately, we have the valuable treatises of Gull and Sutton to guide us in this matter. These classical monographs show conclusively that chronic Bright's disease is really a constitutional affection, with a special localization in the kidneys; that the original change of this disease consists in a sclerosis of the walls of the blood-vessels, which process may be developed in any organ, or all the organs, and that the fibrous metamorphosis may extend from the vascular adventitia into the parenchymas. Notably have they found such a change to invade the tissues of the spinal cord. The change discovered by Da Costa and Longstreth is consequently nothing more than the manifestation of the same constitutional dyscrasia, which prompts the sclerosis of the kidney and vascular tissues in all, and of the nerve centres in some cases of Bright's disease. The sclerosis of the ganglion is not a cause of sclerosis of the kidney, but both are dependent on one and the same general constitutional state.

The Medical and Surgical Directory of Iowa, for 1880 and 1881, is now ready for delivery. It contains names, post office address and professional status of the physicians; the various medical societies, with names and residence of officers and members; a list of members of the American Medical Association from Iowa; Rosters of the U. S. examining surgeons, for pensions for the State, and medical officers of the Iowa National Guards. Medical colleges, state charitable institutions, hospitals, medical laws, including the law establishing the State Board of Health, and the pharmacy act; also an exposé of the fraudulent diploma business; fee bills of medical societies in different parts of the State; a mortuary record and an index of the physicians of the State, alphabetically arranged, with reference page to register proper. It will be sent post-paid on receipt of one dollar and fifty cents, by post office money order, or by registered letter. Charles H. Lothrop, M.D., Lyons, Iowa, is the editor. The total number of physicians in Iowa is 2,359, which includes 1,657 regular practitioners; 226 homeopaths; 210 eclectics; 4 physio-medicals; 11 botanics, and 257 classed as unknown, nondescripts, Illinois exiles and other exodusters.

Klebs contra Virchow.—The great leader of modern pathology has latterly been more fertile in the field of controversial writing than in actual contributions to pathology. Recently he condemned certain of the propositions of his distinguished pupil Klebs, of the University of Prague, who, perhaps, has gone a little far in his advocacy of the germ-theory. But it was quite evident that Virchow's first polemic was rather of an autocratic character, and that the objections in it were based rather on the fact that the

propositions of Klebs were not in accord with the doctrines of cellular pathology, than on any inherent and absolute flaw manifested in them. Klebs now appears in rebuttal, and, while he does not at all strengthen his germ-theories regarding various pulmonary diseases, and on which he bases what we can not at present consider as anything further than an experiment, with even less in its favor than the exploded salicylic acid therapeusis, namely his treatment of phthisis with benzoic acid, he yet manages to give his acknowledged teacher and master some good home-thrusts on the question of cellular pathology. In dealing with the question of pneumonia, for example, and brought face to face with the phenomenon of the pneumonic fever, which none of the cellular changes in the lung, at least of the first changes, seem to explain, Virchow made the remarkable statement that fever is a nervous phenomenon and referable to the nervous system, and, as the nervous system contains cells, therefore of a cellular origin, and that this is in accord with the doctrine of cellular pathology. Klebs justly exposes the circular and fallacious argumentation of this proposition. He also cites several instances to prove that Virchow seems to be, in his recent expressions of opinion, animated rather by a narrow-minded spirit towards younger investigators than that kindly tendency which Rokitansky and other great masters in the same field have manifested in this direction. While it is true that posterity will not admire Virchow the less for what he has done in his earlier period, on account of later vagaries, it were to be regretted, if in his conflict with Klebs, and his actually ridiculous attack on the doctrine of evolution, we were compelled to diagnosticate the decadence of one of the greatest intellects of modern times.

The Action of Tannic Acid.—Of all classes of remedies none have hitherto been examined less carefully than astringents. In fact our present knowledge is almost wholly based on what we feel and see on applying these agents to mucous membranes and wounds, and on their general chemical properties. Their supposed action on internal organs and blood vessels is merely conjectural. The following researches by Dr. L. Lewin (Virchow's Archiv, Vol. 81, H. I.) on tannic acid, are hence of the greatest importance. He begins his article with some chemical researches. It is well known that tannic acid precipitates dissolved albuminoids and gelatine. The precipitates, however, are soluble in acetic acid of moderate strength, in an excess of albumen or gelatine, also in dilute lactic acid, and in alkalies and their carbonates. Tannic acid, treated with an alkali, forms a non-crystallizable tannate. This product, though still of an astringent taste, does not precipitate albumen. Pepsin and peptones are also precipitated by tannin, but not in the presence of more than one-tenth per cent. of hydrochloric acid. Hence the presence of five to ten per cent. of tannin, does not prevent the artificial digestion of albumen or even of insoluble tannin albuminate. By special experiments it was proven that under these circumtances tannic acid is not decomposed into gallic acid.

On adding to blood or lymph a few drops of solution of tannic acid, there occurs a precipitate of tannin albuminate, which re-dissolves on shaking as long as the reaction remains alkaline; in other words, as long as alkaline carbonates are present. An excess of tannic acid forms a permanent precipitate. The hæmoglobin is also changed by tannic acid, the color turning into scarlet, and later into a dirty brown. The spectroscope reveals the presence of acid hæmatin.

Since tannic acid does not prevent the occurrence of mould, its antiseptic properties have generally been denied. Lewin, however, found that, when added to putrescent solutions, it destroyed not only the smell but also the life of the bacteria. It is hence decidedly antiseptic.

In order to study the influence of the agent upon the tissues, the author examined the elasticity of frog's muscles with the myographium, before and after poisoning with tannic acid. The drug was injected subcutaneously in a ten per cent. solution. As a result he found that tannic acid increases the elasticity, since the poisoned muscles were stretched less than normally by a given weight (one hundred grams), and, on removal of the weight, returned more nearly to their initial length. In order to show that this result is not due to coagulation of the muscular tissue, the author used, with the same result, solutions of the alkaline tannates, which do not at all precipitate albumen. The effect is really due to two properties of tannin; the first is its abstraction of water whereby the cohesion of the tissue is increased; in the second place, tannic acid solutions absorb oxygen vigorously. A solution exposed to the air soon turns dark from oxidation. Lewin supposed hence that the tannate acts also by abstracting oxygen and partially asphyxiating the tissues. He found indeed that the frog's muscle, deprived of its oxygen for some hours by ligature of the arteries, suffers the same changes in elasticity as from the effect of an alkaline tannate. The acid itself must act in the same manner, since it is transformed in the blood into an alkaline tannate. The action of tannin upon the vessels has been hitherto examined but very slightly. It was considered self-evident that the

agent tans the vascular tissue as much as any other. In fact its astringent effect upon secretions is usually attributed to contraction of the vessels which it produces. Recently, however, two observers, Rosenstirn and subsequently Fikentscher, examined the vessels in transparent tissues of frogs and mammals, and found that feeble solutions of tannin did not change their size at all, and that solutions, over ten per cent. in strength, produced a distinct, though slight, dilatation. The author repeated these experiments and confirmed the results, but considered the dilatation too slight to be conclusive. He explains, moreover, the dilatation as the result of a stasis due to the destructive action of the agent upon the blood corpuscles. He does not record any further experiments upon the circulation.

The author now enters into a discussion how tannin is absorbed from the stomach. On the strength of his chemical experiments he maintains that no precipitate whatever occurs if the contents of the stomach are distinctly acid, and, that otherwise, the tannin albuminate, if not re-dissolved by an excess of albumen or lactic acid, is digested and changed into soluble peptone. After its entrance into the blood vessels, the tannin is to be found there in the form of alkaline tannate. This, as we have seen, has an astringent taste and action, and this astringency is not wholly destroyed by a partial oxidation. It has hitherto been generally asserted that the agent is changed in the body to glucose and gallic acid; the only proof of this assertion, however, is the gallic acid reaction of the urine, i. e., a blue or dark-green coloration on the addition of ferric salts. But Lewin points out that the commercial tannin contains a large quantity of gallic acid, which it is quite difficult to remove. The author, therefore, sought for tannin itself in the urine, according to various methods which we cannot reproduce here. Since these methods, however, would not reveal the presence of a tannate, the urine was rendered acid by feeding the animals (rabbits) with oats. On introducing tannic acid, either by the mouth, subcutaneously, or by intra-venous injection, it could be readily detected as such in the urine. It was likewise shown that it was absorbed from wounds and mucous membranes, and, also, to a slight extent, from the skin. The urine is decidedly diminished in quantity by tannic acid, but after the elimination is completed the secretion increases beyond the normal amount.

As a conclusion, the author, admitting the action of the absorbed tannin upon internal organs, advises its administration in a soluble form. He prefers it as alkaline tannate made by saturating a tannic acid solution with carbonate of sodium. A tannin albuminate may be prepared by precipitating albumen and re-dissolving it in an excess of albumen, or in a solution of carbonate of sodium.

The Mortality Statistics of Chicago for June, which we gave in our last number, are interesting and suggestive in many ways, and convey to whoever peruses them carefully an immense amount of information. In only one point do they seem to us at this moment, to call for criticism, and that is in regard to the classification, which is in some things hardly creditable to the registrar. Of course such a classification, dependent as it necessarily is to a great extent on the diagnosing idiosyncracies of reporting physicians of all sorts and schools, cannot be scientifically accurate. But the errors to which we refer are such as might be easily rectified in the office, and we are sorry, for the sake of the appearance, that this is not done. Thus it is not according to our way of thinking to include rheumatic and hectic fevers, or even cholera morbus nesessarily among the miasmatic diseases, or pulmonary apoplexy amongst nervous disorders. Purpura hemorrhagica may possibly be sometimes properly called a dietetic disease, though it is extremely doubtful, but why call scurvy a local digestive disorder? Leucocythemia is not properly a female disorder, and there is no use of including sunstroke in nervous diseases, if all the deaths caused by it are put under the head of "violence." We might make other and more general criticisms, but we merely adduce these instances in which the classification is in our opinion faulty, to call the registrar's attention to them that he may correct them. The present style is probably handed down from former administrations, but science is not bound down to precedent, and there is no reason why it should not be reformed.

Remarkable Etiology of Mal perforant du pied.—M. Bouilly and M. Mathieu, report a case of a man aged 31, in whom this troublesome affection appeared in consequence of the removal of a sarcomatous tumor from the sheath of the sciatic nerve. This was one of the exceptional cases in which the disorder was cured eventually. It was an interesting incidental observation that the patient being attacked by variola, the eruption was most extensive, and retarded in its development on the limb from whose nerve the sarcrma had been removed.

Compulsory Vaccination.—A bill has been submitted for the purpose of making vaccination compulsory in France.

A MURDER was exposed some time since in the Bermuda Islands in a peculiar manner, such as has not previously been noticed, and which adds something to the literature of medical jurisprudenee. A woman had disappeared under circumstances that led to the suspicion that her husband had made way with her. While excitement was rife, some fishermen noticed that at a ccrtain point in an arm of the sea where they were accustomed to fish, and which was ruffled by a light breeze, there was a streak of calm such as is produced by a quantity of oil poured on the water. Without being able to exactly account for their action, they set to work to drag the bottom, and after a time brought up a portion of a human body, mostly devoured by fishes, but which from its condition had evidently not been long under water. Further search discovered the rest of the remains, with the weight that had been used to sink them, and such fragments of clothing, etc., as served to identify them with the missing woman. It is probable as "Nature," from which we take the facts, remarks, this could hardly happen except in tropical or warm waters; but this proof that it can occur at all, furnishes a new point in medical jurisprudence that is worthy of note.

THE DANGERS OF ANÆSTHESIA.—There have been several instances during the past few years of women charging physicians or dentists with having committed criminal assaults upon them while they were under the influence of anæsthetics, and it has become the practice, we believe, of many cautious operators to refrain from giving anæsthetics to females except in the presence of reliable witnesses. A paper apropos to this matter was read at the late meeting of the Medical Society of New Jersey, by Dr. P. V. Hewlett, of Newark, and is reported in the New York Medical Record of July 3. Dr. Hewlett, after analyzing the phenomena of anæsthesia and dividing it into three stages; a first, characterized by light intoxication without loss of muscular or will power; a second stage, characterized by deeper intoxication with delusions or hallucinations, and a third or complete stage, when all mental and voluntary action are suppressed, draws the following conclusions: These conclusions are eminently reasonable, but their influence on that unknown quantity in criminal trials, a jury, is not by any means a certainty. The prudent practitioner should guard himself by the presence of witnesses, against any crazy charges of improprieties when giving anæsthetics to women. I, That if a person be fully anæsthetized, she cannot be a competent witness as no one can give creditable testimony who is unconscious and insensible at the time she professes to describe her sensations and feelings, whether those sensations are painful or pleasurable. "II, That if the person is not fully anæsthetized, she is not a creditable witness, for if she is in the second stage or degree of anæsthesia, she may be laboring under the delusion and hallucinations common to this stage; and III, If she is in the first stage and claims she is conscious but unable to offer resistance, the assertion is so inconsistent with the thoroughly well known facts and phenomena uniformly attending the administration and use of these agents, it should be looked upon as false, for all authorities agree that during the first stage the intelligence is not affected, and, consequently, the power of resistance is not lost."

THE INFLUENCE OF MALPOSITIONS OF THE LARGE INTESTINES AND OMENTUM UPON THE BRAIN, was the title of a paper read by Dr. Fraenkel, at the meeting of the Psychiatric Society at Berlin, last March. It pertains to a topic. however, which ought to interest the general practitioner fully as much as the alienist. In former years the view was in vogue that states of cerebral depression could be induced in a reflex manner, by anomalies in the abdominal organs. Although this view was sustained by the authority of Esquirol and Schroeder van der Kolk, it has been abandoned for quite a time, because not well confirmed by pathological researches. Still we know that the brain may be decidedly influenced by peripheral lesions. We need but to refer to reflex epilepsy and the occasional consequences of ovarian disease. It is a fact often observed that the disturbances which produce constipation, are apt to lead to mental depression. Dr. Fraenkel started the discussion of this subject again on the strength of his post mortem observations. Within the last four years he has performed fifty necropsies upon individuals suffering during life from some form of insanity accompanied by mental depression, though not always melancholia. In twenty-five of these cases some anomaly was found in the colon or larger omentum. In four instances the omentum was rolled up and concealed behind the stomach and colon. In six others this lesion was accompanied by downward dislocation of the transverse colon; seven times the omentum was found contracted; twice it was adherent to the abdominal walls, and twice to the os pubis. In four instances the omentum and colon were retracted to one or the other side. The author had to admit, however, granting the coincidence of melancholia or depression with some abdominal anomaly, it would be difficult to show up the causal relation. He could only refer to the every-day observation that overloading the stomach, dyspepsia and constipation are frequent causes of bad humor, which really is but a

mild form of mental depression. He recalled also that Schroeder had experimented with laxatives, and really removed the feeling of anxiety accompanied by costiveness, with aqueous extract of aloes. He strongly recommends, therefore, to examine the abdomen with great care in all cases of melancholic depression, although some of these abdominal disorders unfortunately cannot be diagnosed during life.

Topography of the Nerve Fibres in the Trunk of the Optic Nerve.—The Journal of Nervous and Mental Disease, July, 1880, takes from the Centralblatt, No. 23, 1880, the following remarks by Samuelsohn: Anatomy alone does not seem competent to decide the position in the trunk of the optic nerve of a set of fibres supplying any given part of the retina, especially the important center, the macula lutea. We must rely mainly upon post mortems in cases of partial atrophy for this information. Such an instance was fortunately observed by Samuelsohn. The patient had suffered for three years previous to his death from an absolute central scotoma, involving only the macula. The cause was a retro-bulbar neuritis, with atrophy of the temporal part of the papilla. The autopsy showed partial atrophy of the optic nerve, extending backwards no further than the optic foramen. The bundle of atrophied fibres occupied the very center of the trunk at the optic foramen, but gained the temporal side before reaching the eyeball. At the point of entrance of the nerve into the eyeball the degenerated fasciculus appeared wedge-shaped, with the base reaching to the periphery of the optic trunk on the temporal side. This is hence the course of the fibres ending in the centre of the retina. In conformity with the importance of the macula in vision, the fibres supplying it constitute nearly one-half the bulk of the entire optic nerve.

Intermittent Supraorbital Neuralgia.—Dr. Seeligmüller, of Halle, reports in the Centralblatt für Nervenheilkunde, No. 11, 1880, translated in the Journal of Nervous and Mental Disease, July, 1880, a dozen cases of this affection, with a treatment of decided efficacy. In all instances the attacks commenced daily with remarkable punctuality. They lasted generally two to three hours, rarely longer. The pain was intense. There existed, moreover, tenderness of the supraorbital nerve, and hyperæsthesia of the skin of the forehead. The patients varied in age between the twentieth and fortieth year. The author reminds us in this connection, that according to Henle, the frontal sinus does not exist until the second year of life, and continues to develop even after maturity. As regards sex, the disease involved mainly males. With two exceptions, the patients were residents of Halle, a city entirely free from malarial influence. Moreover quinine had been previously taken by some of the sufferers in large doses, but without relief. The malarial nature of the affection must hence be denied. Dr. Seeligmüller agrees with Horner, (who has lately published many cases) in attributing the pain to a catarrh of the frontal sinus. His reasons he states as follows: In most cases nasal catarrh had been or was still present. The passage of air through the nose was obstructed, and with the removal of the pain, the nostrils became again pervious. Moreover the effect of the treatment confirmed this view. The use of the nasal douche proved successful in every instance. Usually less than three days sufficed for the complete cure. The fluid employed was the ordinary solution of salt, or simply warm milk. It was used in the evening, and again an hour before the expected attack. Wherever the nostrils were found occluded a sufficient pressure was used to force the fluid through. The author attributes the relief to the mechanical emptying of the frontal sinus of the retained secretions. He makes no attempt to explain the astonishing regularity in the time of the attacks.

Transmission of Hydrophobia by the Saliva.—One would suppose that when the rare chance is offered to a pathologist of inoculating animals with fresh saliva from a hydrophobic human being, and the observer records as a result, that the animals died with the characteristic symptoms of this disease, that he had arrived at conclusions in perfect accord with analogous experiences and deductions. For it is well known that even herbivorous animals, once hydrophobic, can transmit the disease by the inoculation with saliva, an act which accompanies biting, just as well as the dog, wolf, fox or cat. But Mr. Raynaud who had supplied the missing link, and confirmed, by actual experiment, that the saliva of hydrophobic human patients was dangerous, is now contradicted by a Russian named Kowalewsky, who is not to be confounded with the great discoverer of the vertebrate nature of the Amphioxus, bearing the same name. This writer claims that he has inoculated three dogs with saliva from hydrophobic patients and failed to produce the disease. So far so good! M. Kowalewsky has done no more than many others have done before him, obtained a negative result of no signification whatever. He might fail in producing septic infection with micrococci and bacteria just as well. But then he goes on to cite his own remarkable experience, which, curious as it will sound to his readers, was that of having been kissed by several hydrophobic soldiers. And still M. Kowalewsky remarks he is not hydrophobic as yet. Then

he adds the instance of an imbecile. who in a hospital swallowed a bolus of insalivated food, rejected by a hydrophobic patient in the same ward, and who remained free from the disease. How much the two latter instances prove, we may safely leave to the reader; but they aptly illustrate the logic manifested by those who seem to be animated purely by the spirit of contradiction, untempered by caution in observation, or care in forming conclusions.

Gastric Sclerosis as the Result of Alcoholism.—Durand-Fardel, in the Bulletin of the Parisian Anatomical Society, gives an exhaustive analysis of the symptoms observed during life, and the appearances found after death, in a case of chronic alcoholism, which might furnish a fitting text for a temperance homily. The symptoms were, ascites of high grade, extreme atrophy of the liver, and all the subjective as well as some of the objective signs of cancer of the stomach. The skin presented that dirty-yellow hue which may indicate the extreme cancerous cachexia on the one hand, and the existence of chronic hepatic disease on the other. The patient had been an inveterate imbiber of strong spirits. On the autopsy a most unique condition of things was found. The peritoneum, especially in the upper half of the abdominal cavity, was considerably thickened, and, at the posterior wall of the stomach, it was metamorphosed into a mass of scirrhous hardness, which bound into one common conglomerate the spleen, pancreas and stomach, and filled out the cavity of the omentum. This mass, which, as the microscopic examination demonstrated, consisted of the hypertrophied serosa and subserous connective tissue, extended down over the anterior face of the kidneys, and sent off prolongations towards the mesenteric glands which were degenerated, probably from the effects of prolonged constriction of their afferent vessels in the fibrous mass. The omentum and the epiploic appendices had undergone atrophy and could be identified only with difficulty. So firm was the attachment of this mass to the stomach, that this organ required to be carefully dissected away from it by means of a scalpel. This organ was much diminished in size, and shrunken away in one corner so as to be hidden, while in situ, behind the left lobe of the liver. It had lost its natural curvatures and was of a cylindroid shape. It was of a grayish-white color; the organ was hard to the feel and granular, but this condition was uniform from the cardiac to the pyloric ends. The thickening involved both the mucous and muscular tunics, and the sensation it gave to the finger was very similar to that characteristic of diffuse cancerous infiltration. Microscopic examination showed that the gastric follicles had universally undergone obliteration. Newly formed and embryonic connective tissue cells filled their lumina, and in the depths of the submucous tisssue, the muscularis mucosa was wanting and replaced by a connective tissue formation. The fibres of the muscular coat were pressed apart by voluminous strands of connective tissue fibres, and even the tunics of the blood-vessels had undergone a sclerotic change.

Features of the Infantile Oral Cavity.—Those who have frequently had occasion to examine the oral cavity of new born children, will have remarked the presence in the middle line, and at the point where the hard joins the soft palate, of little bead-like bodies, varying in number and of about the size of a millet seed. Closer examination reveals that similar, but usually smaller bodies are seated on the gums, particularly on and about that delicate gingival line which marks the obliterated embryonic dental furrow. They have been looked on thus far as cysts of retention, but Epstein, a writer in the new periodical which continues the Quarterly Medical Journal of Prague, as a result of his histological studies, is enabled to state that they are nothing more than accumulations of epithelial cells, taking place in the natural folds of the mucous membrane, and that they have no relation to any of the oral glands, a fact which Kölliker already doubted. They are found in all children during the first week; then they disappear in healthy children; in feeble ones they may persist for many months, and are sometimes thrown off by ulceration, resembling the aphthous process, but the ulceration is at their periphery, not the centre as in true aphthous nodules. On studying further, Epstein found that similar bodies occur on the infant's prepuce, and inferring thence that there was a natural tendency to an overproduction of epithelial structure in the later fœtal periods, he examined the congenital atheromatous cysts, and found that, contrary to the accepted opinion, they are not retention cysts, but also depots of over-abundant epithelia. What relation such accumulations, persisting to the adult period, may have in the production of neoplasms, he leaves an open question.

The Alienist and Neurologist.—A St. Louis cotemporary, with the love and charity so often bred by contiguity, has dubbed the Alienist and Neurologist the "Lunatic and Neurasthenic." We cannot approve of such courtesies, and, in the present instance, had we the same sentiments, we would have left the name of the journal in question unchanged. It is bad enough as it is.

Peptone in Pus.—In a second communication in the same paper, Dr. Hofmeister details his analysis of pus derived from various sources. The peptone was sought for by precipitation with phosphorotungstic acid, after removal of the albumen, the method being nearly the same as the one detailed above for urinalysis. Instead of Trommer's solution he used, however, in some instances, the polarimeter. In every case peptone was found. An analysis of the sample, after purification by repeated precipitation with alcohol, gave the following composition:

Carbon,	52.54 per cent.
Hydrogen,	6.77 per cent.
Nitrogen,	15.92 per cent.

These figures approach very closely previous analyses of peptone in casein. The amount of peptone varied between 0.367 and 1.275 per cent. Repeatedly the observation was made that the quantity of peptone was greater the more viscid the pus. Supposing thus that the peptone might be contained principally in the pus corpuscles, the author filtered several samples of pus, and found indeed much more peptone in the corpuscles than in the serum. The result, however, of such separate determinations was influenced by the time required for filtration. Dr. Hofmeister explains this by assuming that the peptone of the corpuscles diffuses into the surrounding fluid as the corpuscles die and disintegrate. Hence, the longer the filtration lasts the less difference is to be found in the amount of peptone contained in the residue on the one hand and in the filtrate on the other hand. This assumption was indeed verified by disintegrating the pus corpuscles with concentrated solutions of salt, or with dilute alkalies, whereby the percentage of peptone in the serum increases at the expense of the richness of the residue. The author concludes, hence, that the presence of peptone in the urine is a symptom of the destruction of pus corpuscles. The most typical instance is the urine in the third stage of croupous pneumonia. If pus accumulates in the body without disintegration of the pus corpuscles, the peptone is retained, by them and can hence not be absorbed and eliminated by the kidneys.

A Confusing Misprint occurred in our last number in the editorial on "Sympathetic Inflammation of the Eye." The sentence explaining the topic of Knies' researches, should read: "He obtained the chance of examining the eyes after accidental death in a case of *non-traumatic serous iritis*, involving, etc."

Veratrum Viride an Antidote for Opium.—Dr. J. S. Haldeman, in the Lancet and Clinic, declares that the veratrum viride is the direct antidote for acute and chronic opium poisoning.

Cranial Thermometry.—The fact that various observers have found constant differences in the temperature of different parts of the skull, is by itself quite interesting. The deduction that we can thus measure the temperature of the brain is, however, without proof. All supposed grounds for this belief are now invalidated by some researches by an ingenious young French physiologist, M. Frank, who reported the following results to the Paris Society of Biology (Progrès Med., 1880, No. 26). He measured in the first place the heat-conductivity of the bones of the skull. Applying the bone of the dog, of a thickness of three millimeters to the surface of a copper box filled with water, he determined what rise in the temperature of the water was necessary in order to be recognized by a thermometer touching the outside of the bone. He found thus that the water must rise at least three degrees C., before the external thermometer ascends one-tenth of a degree. The skin of the scalp offers by itself a similar resistance to the conduction of heat. The brain substance, on the other hand, conducts quite freely. If hence the temperature were to rise in any given portion of the brain, the heat would spread quickly through the surrounding brain-substance, while even a greater rise than we have any reason to expect, would not betray itself sensibly on the surface of the scalp. We cannot, however, infer anything as to the temperature of the brain by applying a thermometer to the scalp. Reasoning by analogy, we can only expect that an irritation of a given part of the brain leads to reflex hyperæmia and increased warmth of the integument covering it. So far, cranial thermometry may be of value, but the minute localization attempted recently, seems to us untrustworthy.

Esmarch's Bandage has been proposed by Dr. Harten (St. Petersb. Med. Wochenschr., No. 25, 1880), as a test for the detection of simulation in contractures. Among the Russian recruits it seems to be a frequent trick to simulate contracture and anchylosis by a sustained voluntary effort. The reality of this symptom may be tested with chloroform anæsthesia, but also in a safer manner by expelling the blood from the limb. Within half an hour the motor nerves are quite enfeebled, and the simulated contracture relaxes. It seems to us that this procedure might also be utilized in various joint affections to distinguish between anomalies of position due to adhesions and reflex muscular contractions.

Dr. William Kent Gilbert died in Philadelphia, June 28, 1880, aged 51 years. He was coroner of the city, and was distinguished for his rare collection of old medical manuscripts and books.

CONTRIBUTIONS.

DIAGNOSIS AND TREATMENT OF NASAL CATARRH OR CORYZA.

BY EMIL SINCERE, M.D., CHICAGO.

By nasal catarrh or coryza is meant an inflammation of the Schneiderian mucous membrane lining the nose. The exciting causes of this disorder may be, first, accidental or idiopathic; second, constitutional or of scrofulous and herpetic diathesis; third, syphilitic. The acute stage of this disorder shows a common identity, and, in this stage, is the most frequent. By virtue of its frequency, and its tendency to subside without medical aid, it is also the most commonly neglected. When treatment is sought for, the sufferer requires the physician to relieve him of a muco-purulent, purulent, inodorous, or fœtid discharge from the nose. Here we meet effects of causes, and, unless a correct diagnosis is made at sight, routine treatment is instituted, and failure is certain. While the acute stage, whatever the exciting cause may have been, is superficial, limited in extent, and therefore easily yields to treatment, it is quite the opposite in the chronic stage, after deep, large, and almost inaccessible areas of tissue matter have been involved. Here presents itself to the practitioner an almost insurmountable obstacle to the successful treatment of this disease. The difficulty does not arise from want of means with which to combat the evil, but lies in the neglect to consider that with mere routine treatment, without the correct knowledge of the topography of the parts, we cannot reach them, and without making a correct differential diagnosis, we cannot cure them. It is well known that all secretions in contact with atmosphere, unless renewed, become altered in composition, and that this alteration becomes more considerable and more rapid changes take place in some than in others; and, furthermore, a membrane lining the nasal fossæ, and extending into turnings and hollows like the ethmoid, sphenoid, and superior maxilary sinuses, and the meati superior, medius and inferior, cannot long, with impunity, be the seat of inflammation; and whatever may have been the cause of the inflammation, the submucous cellular tissue is soon involved, and ulceration, more or less, soon follows. Moreover, this altered secretion, remaining for some length of time in those turnings and hollows, often desiccates, forms a crust moulded to the passages, a point of irritation, the presence of which, even after the original disease has been cured, becomes a new cause of discharge. It is easy to understand that by the failure of dislodging this factor, the failure in curing this disease is a certainty. When a sufferer with chronic catarrh presents himself, a thoroughly clear diagnosis must be made. The following physical signs will clearly show to which genus each case belongs: The discharge of accidental coryza, or a typical case of simple non-specific, non-constitutional origin, is almost always muco-purulent, easily discharged, since the morbid state of the nasal mucous membrane like other respiratory tracts, is subject to renewed or repeated inflammations, the new secretions softening old deposits, and promotes its discharge, but rarely makes any impression on the crusts well fixed in the turnings and hollows. The pharynx and surrounding parts are always in a normal condition. In the constitutional variety, the lining membrane of the nose is almost always dry; the discharge is scanty. It is generally expelled by hacking. The patient at times thinks it proceeds from above, some times from below. It is of a purulent nature, but comes of mixed colors of dirty gray and yellow. There is often frontal headache, owing to the pressure by the pent up pus in the cavities, and its relation to the cribriform plate of the ethmoidal bone. The pharynx is found eroded, pitted. This is ascribable to forcible ejection of pus buried in the mucous membrane and leaving impressions, and is quite analogous to erosions found on children's lips caused by a morbid pus from the nose. The herpetic variety is differentiated from the scrofulous by successive crops of pimples on the palate or its immediate neighborhood. Some fill and discharge a fluid; some exist a few days, fade, and are replaced by a new crop. The consistence of pus is similar to the scrofulous variety and expelled mostly by the mouth. The syphilitic variety emits an abundant purulent and fœtid discharge, from the nose, mostly accompanied by the characteristic symptoms of the tertiary stage of syphilis.

TREATMENT.

Though syphilitic coryza, when there is no affection of bone, is easy to cure by specifics like mercurials and bromides, yet without expelling the hard matter from the turns and hollows, a source of irritation remains; the trouble continues infinitely. For the accidental, scrofulous and herpetic varieties, there is no specific remedy. Some slight benefit may be derived from alteratives, and we may, to some extent, do good by modifying the state of the system, and placing the patient in a proper hygienic condition; yet the only remedy I rely on is the topical application to the diseased mucous membrane in a direct manner. It rarely fails to bring good results. Patience, system, and thoroughness are indispensable in this tedious disease. It must be remembered that no application will do the least good without previous cleaning of the mucous membrane to be treated. I then order a powder consisting of the red precipitate gr. iv, sugar ℥ss. Of this a good pinch is drawn up with vigor and cause it to penetrate the hollows and turns of the nose. This process is repeated twice or three times a day, the frequency to be regulated according to the amount of irritation it produces. After five or six days the powder is replaced by injections of a solution of nitrate of silver, the first day one gr. to the ounce four times, then augment the strength of the solution one gr. to the ounce each day until five grs. are reached within the next six days four times a day.

Apply the powder again, after which injections of a solution ranging from five gr. to twelve gr. to the ounce the six days. Now the powder is changed for one consisting of ℥ss each of bismuth and Venetian talc, which may be more liberally applied. After six days the injections are made of a solution from twelve to twenty-five gr. to the ounce, increased daily one gr. until twenty-five grs. have been reached. The plan is then at once, and without interruption and repeatedly in succession, to apply the remedy. When normal secretion has been present for six weeks, the treatment must be relaxed by reducing the number of applications; and, if an improved state continues, the remedies are then applied only once in two days, later once in three days; finally, for some months longer, once in four days.

The improvement in some cases is so rapid that the patient thinks himself well, and ceases to continue treatment. The relapse is certain to come. In order to keep a more strict watch I insufflate the first dose in the day, for several weeks; the same I do with the injections. By this mode they are more on guard. For the insuffiation of the powder I take a Eustachian catheter, which is inserted deep enough to reach the posterior nares, then turn the beak toward the proper points and blow in the powder or inject the fluid.

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ANIMAL HEAT.

BY H. W. WILEY, M. D.

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It has been long supposed that the source of animal heat was the disintegration of the tissues of the body and the food under the influence of oxygen. On this supposition the correct measure of such heat was to be found in the products of oxidation, viz., water and carbonic anhydride (carbonic acid.) The method heretofore in use for determining theoretically the amount of heat produced in the organism is essentially as follows:

I. We determine the total amount of oxygen absorbed.

II. The amount of carbonic anhydride produced.

III. The amount of water produced, on the supposition that all the oxygen in excess of the quantity required to form carbonic anhydride, has united with hydrogen.

IV. Finally the total heat produced is calculated on the supposition that the oxygen united with free carbon and free hydrogen.

In this method of determining animal heat, there are three chief sources of error, viz.:

I. Oxidation in the animal body is not produced on free carbon and free hydrogen.

II. There are other chemical combinations produced on the organism, independent of oxidation, which give rise to heat.

III. Heat is also produced in the organism by molecular fission, i. e. the spitting up of one molecule into two or more of a different kind.

It seems strange that physiologists should ever have been so ignorant of chemistry as to entertain the first of these sources of error. It is true that it has never been taught that carbon was burned in the body like coal in a furnace, and hydrogen as in an eudiometer. Nevertheless it has been taught that the amount of heat produced in the formation of a given quantity of carbonic anhydride and water was the same, no difference what the previous state of combination of their constituents might have been. This fallacy has been thoroughly exposed by the eminent French scientist, Berthelot, in his late classic work, *Mecanique Chemique.* In general we may say that the oxidation of any proximate element in the body, or of any complex article of food, produces a quantity of heat equal to the amount which would be produced by the oxidation of the elements of the compound directly, diminished by the heat produced in the formation of the compound itself. As an illustration, take the case of alcohol as given by Berthelot. The oxidation of 46 grammes of alcohol, supposing the products of the reaction to take the liquid state, would produce 199.2 calories, corresponding to 24 grammes carbon, and 207 calories, corresponding to 6 grammes of hydrogen, sum=406.2 calories. It would be an error to suppose that this represents the total amount of heat produced. To get at this quantity we must substract the amount of heat produced in the formation of the alcohol from its components. This amount is expressed by 76.5 calories. The total heat, therefore, produced by the oxidation of 46 grammes of alcohol in the system is 406.2—76.4= 329.7 calories. (The calorie is the amount of heat required to raise one kilogramme of pure water from 0° to 1° centigiade). We make no less an error if we compute the heat produced from the amount of oxygen absorbed, and for the same reason. Thus 8 grammes of oxygen if burned with pure alcohol produce 26.8 calories; acetic acid 26.3 calories; butyric acid 25 calories; oxalic acid 30 calories; formic acid 35. Thus we see that the quantities of heat produced in oxidation varies with the previous state of combination of the carbon and hydrogen. Of the second source of error I will say that physiologists, while they have known in a kind of nebulous way that all chemical reactions (few exceptions) either produce or absorb heat, have never made any attempt to estimate the magnitude of these changes as generators of animal heat. There is no doubt of the fact that the formation of the hundreds of different compounds found in the tissues of the animal body, has been attended with thermic phenomena, mostly of a positive nature. We cannot deny, therefore, that these have an important function in the maintenance of the heat of the body. Of these chemical phenomena not directly dependent on oxidation, I will mention two.

I. *Combination of water.* According to Berthelot, "When water combines with a proximate compound

the heat developed or absorbed is equal to the difference between the heat of formation of that principle from its elements, and that of the resulting compound diminished by the heat of formation of water."

Thus anhydrous acetic acid when changing to the hydrate gives off 7 calories. The others in becoming alcohols by uniting with water, produce 2 calories. (mean). The hydration of fatty bodies produces the same result.

Reciprocally to the above principle I will mention, II. The following: "When water is eliminated from an organic compound, the heat absorbed or set free is the difference between the heat of formation of the initial system from its elements and that of the final system, plus the heat of the formation of water."

It might be expected that since according to the preceding principle heat is generally set free, according to this one it would generally be absorbed. This is doubtless true, yet there are many exceptions. Take for instance two organic principles, chemically almost identical, the one being found in the system, and the other often in the food, viz., glucose and cellulose. Less heat is set free in the formation of glucose from its elements than in an equal weight of cellulose. Hence it happens that when cellulose is transformed into glucose by hydration, heat is set free. For 180 grammes of cellulose, the heat amounts to 149 calories. Thus we see that in the ordinary processes of digestion an immense amount of heat may be produced entirely independent of oxidation.

3. *Molecular Fission.* Oxidation is not the only way in which molecules are destroyed. We often have simply a breaking up of the molecule into two or more others less complex in structure. Especially is this true with organic molecules. For instance, we may take glucose, a substance found constantly in the body. Glucose by fermentation set up either spontaneously or by some extraneous principle, breaks up into alcohol and carbonic anhydride $C_{12} H_{24} O_{12} = 4 C_2 H_6 O + 4 C O_2$. For 180 grammes of glucose this would give 85 grammes, $C O_2$ and 92 grammes alcohol. Now the heat of 92 grammes of alcohol = 148 calories. The formation of 88 grammes CO_2 = 188 calories, sum = 336 calories. But the heat developed in the formation of 180 grammes of glucose from its elements, viz., carbon, hydrogen and oxygen, is only 265 calories. The total amount of heat set free therefore in this fermentation = 336 — 265 = 71 calories. When we consider the kinds of food which nourish the body, we find that there are three classes, viz:

I. Fatty substances.

II. Carbon hydrates.

III. Albuminous principles.

Of these the fatty matters produce heat, either by fission or simple hydration, as it appears under the influence of the pancreatic juice.

The hydrates of carbon, such as sugars, starch, etc., develop heat by simple fission, and possibly by incipient fermentation. The albuminous principles may be classed chemically as amides, or rather derived from amides, and as such are able to produce marked calorific effects, either by hydration with fission, or by hydration with combination.

Mr. Berthelot concludes his study of the heat produced by chemical changes in the living organism as follows: "All these facts and calculations show how the problem of animal heat ought at the present time to be understood and generalized. They furnish some new data of which the physiologist and physician must hereafter take account. The fundamental idea remains; but as it often happens in the sciences, the problem is complicated in proportion as we penetrate farther into the true conditions of natural phenemena."

Above I have given a mere outline of the present relation of physio-chemistry to one of the most difficult problems of physiology. It shows at least how intricate the relation may become between the most abstract data of pure science and the real problems of scientific medicine.

A NEW VULCELLUM FORCEPS DESIGNED TO FACILITATE THE OPERATION OF HYSTERO-TRACHELORRHAPHY.

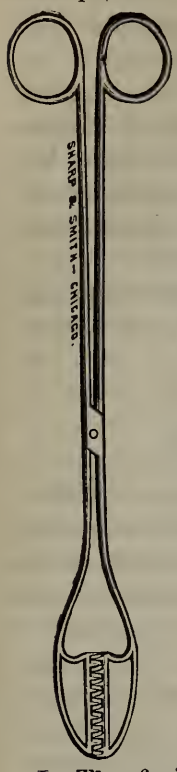
BY D. A. K. STEELE, M.D., CHICAGO.
Gynecologist to the Cook County Hospital, Surgeon to South-Side Dispensary, Etc.

Drs. Thomas Addis Emmet, A. Reeves Jackson, and other less noted gynecologists, have so accurately described the history, symptoms, causes, frequency and diagnosis of lacerations of the cervix uteri, and, by means of their frequent, forcible and convincing contributions to the medical periodicals upon this subject, have educated the great mass of progressive physicians (especially the younger M.D.'s) to recognize this lesion and abandon the diagnosis of "ulceration" and its resultant, cruel, local cauterization, that there is but little, if anything, to add to these departments of the subject. In the operative details, quite naturally, there is a divergence of views.

My preference is to have the patient on her back with the thighs flexed upon the abdomen, the uterus exposed by means of a perineal retractor, and steadied and controlled by means of a guiding thread passed through the centre of each cervical lip, after the method of Jackson. Where there is no pelvic inflammation or adhesions present, this method gives the operator the best possible advantage. In denuding the lateral surfaces of the laceration, time is often lost by lack of a proper instrument to seize and hold the strip of tissue to be removed. Anyone who attempts to denude this dense cicatricial tissue will appreciate the difficulty of the task, and the perverseness of scissors in taking hold of a dense, slippery convex surface, even when aided by a tenaculum. When the edges are freshened in this way the outer edge may be irregular, and the vivified surface uneven by reason of the repeated snippings required.

To obviate this inconvenience and shorten the time of the operation, I devised this Vulcellum

Forceps, which is represented in the cut, and in my



hands, and in those of my professional friends who have used it, it has proved a valuable addition to the other instruments used. We are enabled by it to seize and hold a strip of tissue the exact width and length we wish, and, with a single sweep of the curved scissors along the convex surface of the forceps, we denude it smoothly and accurately.

The instrument is eight and a half inches long. The shanks are four inches to the joint, and the toothed convex edge is one inch in length, having ten teeth on either side one-tenth of an inch in length. These teeth interdigitate when the forceps are closed.

The instrument is about the weight of an ordinary uterine dressing forceps.

The advantages we have found over other methods employed are;

I. The facility with which the strip is denuded.

II. The evenness of the edges and surface when vivified.

III. The more exact coaptation of the lips.

IV. Greatly shortening the length of the operation, which is extremely important where it is undertaken without an anæsthetic.

Messrs. Sharp and Smith will furnish the forceps when desired.

LES INCURABLES.

BY DR. JAMES I. TUCKER, CHICAGO.

The new Home in this city will most likely prove a paradox, namely, that *incurable diseases are often curable;* not curable in the sense in which the charlatan uses the word, that is, by the exorcism of a sort of personal devil by medical legerdemain, but according to the true etymology of the word "cure," which simply means "to take care of" or place under influences and surroundings best calculated to favor recovery, to which end most diseases, if not mismanaged, have an intrinsic tendency. The two cases to which I wish to call the attention of the Review, came under my observation while I held the position of Resident Physician to the Soldiers' Home in Boston.

The first case was one of disease of the spinal cord. (I will make no attempt at pathological exactness), which culminated in profound sensory, motor and trophic lesion. Peter X. enlisted in the U. S. Army early in the war, and at an early age. He went directly to New Orleans. On board a transport he got into a scuffle with a comrade, in which he was worsted and thrown to the deck below, where he struck upon the lower part of his spine, and received, also, a blow on the head which rendered him unconscious. In this condition he was taken to a hospital and cared for by the late Dr. Stone. Upon his return to consciousness he found himself unable to move his legs. They were paralyzed. This inauspicious beginning of a military career was followed by weary years of hopeless invalidism and disability in numerous hospitals and asylums, from one to the other of which he was removed from time to time at the caprice of the tireless weavers of red tape. At last he reached Boston, where he came under the care and observation of our medical staff. Upon examination we found total loss of sensibility and motility in the lower extremities, which were so much atrophied that they were literally skin and bones. Above, the body was strong, well developed, and the mind exceedingly buoyant and cheerful. It did not seem wise to make further trial of remedies, surgical, medicinal, electric, and mydriatic, all of which had been faithfully tested. We sought only to make him comfortable and happy. Five years after the accident above mentioned, Peter X. was still totally paraplegic. Although fifteen years ago, it seems to me but yesterday, that he called me to his bedside and asked permission to visit his father in Western Massachusetts. Permission was granted, and the necessary sum of money collected from the liberal friends of the institution. Absolutely helpless as he was, so far as locomotion was concerned, we had to convert carriage and car into a hospital. Arrived at his father's house, fatigued, he retired to rest. A few days passed, and one pleasant summer morning Peter begged to be taken out and laid upon the sward in front of the house that he might witness and better enjoy a game of base ball, which a local club was playing. While lying upon the grass he was seized with a violent pain in his back. This lasted during the night, and, in spite of anodynes, continued till morning. In the morning he was not only free from pain, but he said to his attendants that he believed, with their help, he could walk. *He walked.* Day after day his muscular strength increased, and, in less than two months from the time he left the Home, he walked into my office. In less than half a year he went to work on a farm in a western State, and, up to last accounts, he was strong and well, not even a trace of the atrophy remaining.

Is not this an illustration of the curability of incurable disease?

My second case is one of inveterate skin disease. Andrew was a soldier about 25 years of age and served a term in the war. When he was admitted his disease was so loathsome that we put him into a ward by himself. A nurse could hardly be hired to enter the room in which he lay, and often it devolved upon me to take him his food and drink and look after his wants. His disease covered almost the entire body. So extensive, so severe, so loathsome, and so mortal was it, that the medical staff, not one of whom was a dermatological expert, called in consultation Dr.

Silas Durkee. He pronounced the case one of eczema impetiginoides, and gave a fatal prognosis. There was no doubt in his mind, nor in our own, that the unfortunate man would die. His end approaching, he desired to be taken to his home in Lowell. We heard no more of him for a while, but, in an incredibly short time, it certainly did not exceed three months, he came back to the Home *well*. He had undergone no treatment. There was scarcely a trace of the disease. I believe he is now working in a cotton factory in his native city, as white and as pure as the cotton he weaves.

Is not this also an instance of the curability of incurable disease? Hence, I predict that the new Home will verify a paradox.*

FOLIA CAROBÆ JACARANDO PROCERA.

BY J. H. EGAN, M.D., PULASKI, TENN.

This is a tree, a habitat of Brazil, and attains a height of thirty to forty feet. The flowers are red and white in beautiful terminal cymes, and have an agreeable, honey-like flavor; the fruit is a woody bivalved capsule, containing several winged seeds. The leaves alone are used in medicine; the dose is from fifteen grains to one ounce.

Folia Carobæ is officinal in the Brazilian pharmacopia, and is highly esteemed by the physicians as an alterative. Long before it became officinal, it had been used by the natives as a domestic remedy for scrofula and other blood diseases, and it was owing to the great success attending its use that various and elaborate experiments were made by the Brazilian physicians, which were crowned by success. It was submitted to the Academy of Medicine at Paris, and taken up in the materia medica.

It may be taken internally, and also used topically. The best form for internal exhibition is in fluid extract, of which a teaspoonful may be taken every two hours, or a tablespoonful three or four times daily. For topical use the powder may be dusted over the affected parts.

Folia Carobæ is a powerful alterative, tonic, diuretic and diaphoretic. In Brazil it is used as an antisyphilitic in place of mercury, and from this use it has received the name of "cybistas antisyphilitica." It is more powerful in its alterative action than phytolacca or corydalis, and possesses the property of disintegrating fatty tissue, and preventing renewed formation of same. For this reason it is of inestimable value in secondary syphilis. As a tonic it increases the appetite and promotes digestion. In its effects on the kidneys it increases not only the solids but also the fluids in the urine; in other words it combines the effects of both digitalis and nitrate of potash. On this account it becomes a remedy of the highest rank in secondary syphilis, as often destroying the fatty tissue, it eliminates it from the system through its action on the kidneys. It may be termed a diaphoretic, but will not produce the marked effect of Dover's powders or jaborandi. It causes the skin to feel moist. This meets our expectations, as we do not expect a violent action upon skin and kidneys simultaneously. The one antagonizes the other.

In syphilitic ulcers, mucous patches and eruptions, the powder dusted over the sores has an extraordinary healing tendency.

*If these relations should seem too graphic to be true, I have only to refer to Rev. Dr. Watterson, of Boston, who, with other clergymen, taking a theological view of the matter, regarded the recoveries as due to the direct interposition of Divine Providence. To the physician the first case signified the restoration of cells and tissues to their integrity, and, consequently, the resumption of the three imperial functions. The second case is also capable of a physical explanation.

CORRESPONDENCE.

NEW YORK, August 1, 1880.

Among the many charitable enterprises undertaken in this city, there is one which, at this season of the year, appeals very strongly to the sympathy, both passive and active, of the people, and has this summer obtained their hearty support. I refer to the project of taking sick or feeble children of the poorest classes out of the city to spend a fortnight in the invigorating country air. To anyone who has seen the surroundings of the tenement-house population, and the condition in which these people exist, any proposal for the relief of the prevailing misery, even though temporary, needs no commendation. Penned up in a small room, a family of five or six persons is often found in a state of filth and destitution only to be imagined by those who know the utter degradation of this class. The room is probably but one of thirty in a high, narrow, ill-lighted house, without provision for ventilation or proper drainage. And if the tenants try to escape from the damp, foul odors, and to find more space and air in the streets, it is only to be disappointed; for the street itself is but a narrow way between two long rows of similar dwellings, and is filled with their overflow and refuse. Swarming as such streets and houses do with children, it is little wonder that they should swell the death rate to an appalling figure during the summer, when even in the most spacious and elegant residences of the cleaner parts of the city, well cared-for infants cannot always escape the diseases of the season. Why even a larger number do not succumb amid such surroundings, where pure, untainted air is unknown, is a wonder. That any should recover when once attacked with disease is marvellous. It was the knowledge of the condition of this part of the population that led several of the charitable institutions of the city to propose a scheme for their relief. The Childrens' Aid Society, St. John's Guild, and various private societies saw that the remedy for many of these children's diseases was simply pure air, and as it was impossible to get the remedy to the suffering children, the only way was to take them to it. So they began by organizing excursions for a day to the sea shore, or up the Hudson, thinking that even a few hours in the cool, invigorating breezes would prove

of no little service. And so it did. But there were cases which required more than a few hours, and for these some provision had to be made. This was done on a small scale by building homes in places near the city, where children could be kept for a week or more. The Children's Aid Society took 2,900 children out of the city last summer to their sea-side sanitarium on Long Island, and other organizations cared for many more. A greater work has been done, however, by the managers of the Evening Post. Appealing through the columns of their paper for aid, they employed a clergyman to make a tour through New York State, visiting the country towns and asking the farmers to take one or two of these waifs into their houses for a few weeks' visit. Preposterous as this seemed at first, many were found willing to give room to the poor children, and fourteen companies, of about one hundred each, were taken to the country to gain strength and health from the fresh air and plain substantial diet. This year the work has been repeated. Contributions to the "Fresh Air Fund" began to come in early in May, and on the 20th of July over $7,000 had been sent to the Post for this purpose. Mr. Parsons, the manager of the expeditions, has already taken out several companies, and is now going almost weekly to various parts of the State. He writes very vivid descriptions of the wonder and pleasure of the children, many of whom had never before been outside of city streets, at the commonest country scenes; and, what is more to the purpose, he tells of the rapid recovery of the sick and feeble. Any one who sees these boys and girls returning from their trip, with sunburned faces and fat and rosy cheeks, and contrasts them with the thin, pale, sickly children of city streets, can hardly believe that they belong to the same species, and that two weeks of fresh air and good food could produce so great a change. Certainly a substantial benefit is secured physically, and it is hoped also mentally and morally, by the purity of the country surroundings, and the stimulus of an uncontaminated atmosphere. Of course this is but one of many attempts at the improvement of the physical condition of the masses, and few permanent results can be expected. If it saves the lives of hundreds of children yearly, and if it succeeds in giving those children an idea of the comfort of cleanliness and pure air, which will lead them to improve their surroundings to some extent as they grow up, it is a step in the right direction. The approval of those who examine the undertaking is seen in their generous contributions, and these have been so liberal this summer that nearly 10,000 children will be taken out of the city by the various societies. The good results secured have been so evident that similar enterprises have been started in Boston and Philadelphia. The physicians of this city, especially those connected with the Board of Health, coöperated willingly in the project, selecting the children who most needed the change, and aiding the managers by their hearty commendation and by generous gifts. As they appreciate the advantage and pleasure of a vacation themselves, they cannot but assist others to take one.

The annual exodus to Europe draws with it many of our leading practitioners, and this summer a large number have gone abroad. Though they are doubtless willing to profit by their visits to foreign hospitals, it is encouraging to know that they are not all regarded as students. The position of American surgeons abroad is no longer a doubtful one, and the cordial reception which has been given to several of them in London and Paris, and the respect shown for their skill, originality, and success, demonstrates a rising appreciation of their merit and a disposition to give them the place they deserve at the head of the profession.

Legislative interference in professional matters is not, as a rule, either acceptable or advantageous, but the bill lately passed to regulate the licensing of physicians and surgeons, may be regarded as a commendable exception. The number of irregular practitioners, charlatans, quacks, etc., congregated in this city, has been increasing of late with such rapidity that it became necessary for the public to adopt measures for their own protection. Just complaints by physicians had been of course ascribed to jealousy; but when the various swindling operations and criminal cases had been so often repeated as to attract attention, and the people, from unpleasant experiences, became suddenly convinced that the complaints were not without ground, steps were taken to put a stop to these abuses. The result is embodied in the new law, and it only remains to enforce it thoroughly. It is drawn up with care and seems to cover the ground completely. It provides that every person engaged in the practice of medicine or surgery in this State, shall register in the county clerk's office before October 1, and everyone hereafter intending to begin practice, shall register before commencing. The applicant in registering must present as his authority for practicing, either a diploma or a license from some legally organized and recognized institution of the State. Any person coming to this State from another State, in order to be licensed must exhibit the degree or diploma of some reputable college to the faculty of an incorporated medical college of this State, with such satisfactory evidence of his qualifications as a physician and surgeon, as the faculty may require. Any person violating this law may be punished, if convicted, by fine or imprisonment, or both. Half the fine so collected will go to the informer, and the other half to the county treasury. It will be seen that this law puts the whole matter of licensing into the hands of the medical faculties, where it belongs. Now, if some adequate tests of knowledge could be proposed by them, and candidates should be obliged to come up to a given standard before receiving a degree or a license, there would be some hope of suppressing the irregular and unlicensed

practitioners of this State and city. Perhaps it is hardly fair to predict the probable standard which will be demanded by the faculties, now that they possess so much greater responsibility. But there are some who will watch their course in this matter closely, with a view to urging some active measures in the direction of more rigid tests and requirements. It is hoped that by the first of October we can eliminate a few of these objectionable individuals who impose upon the public under false pretenses, and disgrace the profession under whose cloak they try to hide.

Some mention must be made, perhaps as well in this connection, of Dr. Tanner, whose name and deeds have occupied such a prominent place in the papers for the past month. Whether he has really fasted as he claims to have done may be left undecided, though every medical man will have an opinion of his own upon the subject. Suffice it to say, that he refused in the outset to place himself under the restrictions proposed by Dr. Hammond; that the experiment, if it be so regarded, has not been conducted by physiologists, nor in a scientific manner, and that the medical men who have been present do not include any of our leading physicians. The only apparent result of the whole business has been to furnish subject matter for the newspapers, and a basis for poor jokes by the funny men of the community. The fasting doctor has no claim upon the attention of scientific physicians.

As there are few practitioners who do not see continually cases of nephritis in its various forms and stages, it may be interesting to some to learn the various methods of treatment pursued at present in Bellevue hospital. In all cases of Brights' disease it is admitted at once that only the symptoms, and not the disease itself, are amenable to treatment. Prominent among the symptoms is the œdema and anasarca, and various means are employed to relieve this. Œdema of the feet and legs is moderate, though more of a discomfort than an actual ill; often troubles the patient considerably toward evening. In these cases an evenly applied bandage gives great comfort and enables the patient to walk about, when, without it, the use of the limbs would be almost impossible. The bandage is applied early in the morning, before the fluid has accumulated in the ankles, and is put on tightly though not so as to cause any interference with the circulation. If a figure of eight bandage is applied to the foot and ankle, and no reverses made, it is found that a more evenly distributed pressure is secured without the production of the creases on the surface, which attend the reverse, and often cause considerable annoyance to the patient. The rubber bandage has been used a good deal of late, and many prefer it to the roller. It adapts itself to the limb, and is more comfortable.

When the œdema becomes excessive, and the feet and legs are greatly swollen and hard, and the skin becomes tense, smooth and shining, numerous punctures with the needle, or incisions about an inch in length, are resorted to, for the purpose of allowing exit to the fluid. It has been stated by some authorities that incisions are preferable to acupuncture, being less liable to produce a diseased condition of the skin. The experience in this hospital does not support this opinion, and most of the physicians find acupuncture safe and satisfactory. After the puncture or incision is made, cloths wrung out in hot water, containing a small per cent. of carbolic acid, are applied to the limb and renewed frequently, the action of heat being favorable to the exudation of the fluid. In a number of cases now in the wards, this treatment has given great relief, the œdema subsiding and the patients being able to walk about in a few days. The small amount of pain attendant upon the incisions may be obviated if necessary by spraying the limb with ether just sufficiently to benumb the surface before making the cut. Of course in all cases diuretics are used freely, and the œdema is permanently cured only when the function of the kidneys is renewed. It has been found that when the diuretics begin to act the œdema is relieved more quickly if a dry diet is insisted upon, fluid in the tissues being absorbed in order to supply the want in the blood. Patients may be allowed two or three glasses of milk daily with their meals, but all other liquids are refused them. This plan is now pursued successfully in all cases where there is general anasarca. The condition of anasarca is often removed by the use of diaphoretics, and this class of remedies is resorted to in those cases where diuretics fail. The fact of the complementary action of the skin and kidneys is kept in view in all cases of nephritis, and when the amount of urine passed is very small, a free diaphoretic action is produced at once in order to prevent uræmic poisoning. The best results in the hospital are obtained from the steam or hot air bath; as this rarely fails to produce profuse sweating, and can be easily regulated. Recently the action of pilocarpine, the active principle of jaborandi, has been carefully studied. A solution of the muriate of pilocarpine, of the strength, gr. iij to ʒij, is made and of this 10 min. is injected hypodermically, thus giving ¼ gr. of the salt at a dose. Usually in five minutes sweating begins upon the face and neck, and extends downward, becoming universal by the end of fifteen minutes. At the same time expectoration of saliva becomes excessive, so that it runs from the mouth in a stream. Frequently some of this saliva is swallowed and causes nausea and vomiting; in other cases the vomiting is due to a direct action of the drug, and may be so distressing as to prevent its further use. A cough usually accompanies the diaphoresis and salivation, with an expectoration of fluid which evidently comes from the bronchial tubes. A knowledge of the fact of this effusion into the bronchials is of importance, as a neglect of it has been productive of serious results in one or two cases where pilocarpine was injected during a state of coma. The condition of the patient be-

ing such as to prevent any forcible expectoration, the fluid accumulated in the lungs and gave rise to œdema, to which the patient succumbed. In fact, œdema of the lungs must be regarded as a possible objection to the use of pilocarpine whenever it is suggested as a remedy. A fluid exudation into the intestine usually occurs during the first hour after the drug is exhibited, and in ten cases on record a free movement of the bowels took place within that time. The diaphoresis ceased in most cases in two or three hours, though in one case it persisted for four and a half. It is usually followed by some feeling of exhaustion and a desire to sleep. By its use uræmic symptoms may be successfully met, and it is found that the anasarca is markedly relieved. The fluid may, however, persist in spite of all these measures, and, in such cases, hydragogue cathartics are used freely, especially croton oil and elaterium. Two or more of the above methods of treatment are frequently combined with good result, and, in most cases, the œdema and anasarca disappear partially or wholly in a short time. S.

ANALYSIS OF A SECRET CANCER PLASTER.

CHICAGO, July 26, 1880.

A person living not a thousand miles southwest of Chicago, treats such patients as he can convince that they have cancers, as follows: He applies a caustic plaster for six hours, producing a white eschar. Removing the plaster he poultices the spot for twelve hours, and then applies the plaster for six hours more. In this way the cautery is gradually deepened, and the eschar turns black and begins to separate from the living flesh. When he judges the action to be sufficient, he ceases the use of the caustic until the slough drops out, when, if any suspicious points remain, he reapplies the remedy. The incompleteness of the work, however, is manifest by the large proportion of cases where the disease reappears in the same spot.

Some of his caustic having fallen into my hands, I gave it to Prof. M. P. Hatfield for analysis. The material was in the form of a brown paste, which, on close inspection, consisted of a fine brown powder imperfectly mixed with a transparent or translucent paste containing the caustic. Applied to the raw surface of a cancer, I found it to turn it white and to produce an eschar. Prof. Hatfield found the active principle to consist simply of chloride of zinc. A faint trace of iron was present as an impurity, and the coloring matter was a vegetable powder.

The quack claims almost miraculous powers for his secret plaster of chloride of zinc, and finds a considerable number of dupes to employ him.

The moral of this tale should be pondered by surgeons. The general horror of the knife is natural, and is so decided that many minds cannot calmly face it, even with the promise of ether. Such patients will gladly endure great pain from a caustic if they can be spared the thought of the cruel steel. A mental pain is as real as a physical one and harder to bear. Would it not be really humane in properly selected cases to use caustics more than we do, making up for their clumsiness by attention and determined persistence, so as to be thorough in the extirpation?

Esmarch's painless caustic powder might serve in some cases, and chromic acid, used while the patient is under the influence of morphine, would serve a quick turn in others.

Esmarch's painless powder prepared is after the following formula:

℞	Arsenious acid,	one part.
	Sulph. morph.,	one part.
	Calomel,	eight parts.
	Pulv. gum Arabic,	forty-eight parts.
	Mix.	

Sprinkle thick every day on a surface either raw or denuded of cuticle by a blister.

EDMUND ANDREWS, M.D.,
No. 6, Sixteenth St.

MICHIGAN STATE BOARD OF HEALTH.

The regular quarterly meeting of this Board was held at their rooms in the State capital, at Lansing, on Tuesday, July 13, commencing at 9 o'clock A.M. The following members were present: Dr. R. C. Kedzie, President, of Lansing; Rev. Dr. D. C. Jacokes, of Pontiac; Dr. Henry F. Lyster, of Detroit; Dr. J. H. Kellogg, of Battle Creek; and Dr. Henry B. Baker, Secretary.

Dr. Lyster called the attention of the Board to syphilis, a disease to which but little attention was paid by sanitarians. but which causes much sickness and many deaths in this State. He was requested to prepare a paper on the subject, and present it at the next meeting of the Board.

The resignation of Dr. H. O. Hitchcock, of Kalamazoo, as a member of the Board, and the appointment of Professor E. A. Strong, of Grand Rapids, by the Governor, were announced, and the following resolutions were adopted:

Resolved, That in the retirement of Dr. Hitchcock from membership in this Board, the Board loses one of its most efficient and distinguished members.

Resolved, That the individual members of the Board, regret the personal separation thereby entailed, and extend to the retiring member their best wishes for his continued prosperity.

A letter from Dr. Hitchcock commended very highly his successor, Professor Strong, as also did other members.

BOARD OF HEALTH IN DETROIT.

The secretary presented a communication from F. G. Russell, city attorney of Detroit, suggesting that the State Board address a letter to the mayor and aldermen of that city, recommending the organization of a Board of Health, and the appointment of a health officer.

Dr. Lyster said there was no way of getting reliable statistics relative to sickness and mortality in Detroit. The record of interments is the only source of information, and is not reliable, as the reports to the city clerk are voluntary, and there are many interments (especially of Israelites) outside the city. The old Board of Health was not efficient, because unwieldy, but the "sanitary squad" of the police force does some efficient work in enforcing the ordinances relative to garbage, etc. The city police, however, oppose the appointment of a health officer, fearing it will interfere with the work of their "sanitary squad." It was suggested that perhaps the people of Detroit did not wish the real facts relative to sickness and death disclosed. Drs. Lyster and Baker were appointed to prepare a plan for a Board of Health in that city and endeavor to secure its adoption.

SICKNESS AND PAUPERISM.

A communication was presented from Hon. H. W. Lord, Secretary of the State Board of Correction and Charities, relative to pauperism as a result of sickness. After some discussion relative to the amount of pauperism caused by sickness, and the extent of the field over which a study into the subject should reach, a committee was appointed to investigate the subject, to be known as "the committee on the relations of preventable sickness to taxation," with Dr. J. H. Kellogg as chairman.

SANITARY SCIENCE EXAMINATIONS.

The remainder of the forenoon session was principally occupied with routine work' and the perfection of details for examining and marking the standing of candidates in the examinations in sanitary science inaugurated the following day, and which requires "the replies on each set of topics shall be marked on a scale of ten, and an average standing of 70 per cent. on all topics shall be necessary in order to pass the applicant." One who successfully passes the examination receives a certificate that he is considered qualified to act as health officer of any township, city or village in Michigan.

A paper on "Unsanitary Conditions in our Public Schools," by G. E. Corbin, M.D., St. Johns, was read. The paper consisted of details of overcrowding, bad ventilation, and the sickness resulting therefrom, which came under his personal observation. The paper will be published in the report for 1880.

Two valuable papers by A. W. Nicholson, M.D., of Otiwill, were presented. One was on "Ozone," and contains details of numerous experiments; and one on "Periodic Fevers," containing detailed records of cases and coincident meteorological conditions. The papers were accepted with thanks, and ordered printed in the Annual Report for 1880.

SANITARY CONVENTIONS.

The Secretary reported that he had edited and prepared for publication the proceedings, etc., of the Sanitary Conventions held at Detroit and Grand Rapids during the past winter, and the copy was in the hands of the printers.

ADULTERATIONS OF FOOD.

Dr. Kedzie said he had received a request from gentlemen in Chicago, to enter upon an investigation of adulterations of food, and had replied that the Board had no funds. He stated that the adulteration of sugar with glucose was increasing rapidly, and was being done more skilfully. That adulteration with pure glucose did not endanger health, but the sugar was not so sweet. The manufactured glucose, however, was unhealthful to take into the stomach, because of poisonous substances, which are always associated with it. Dr. Lyster said a prominent candy dealer had informed him that all candies, excepting rock candies, were composed in part of glucose. Dr. Kedzie said nearly all syrups were made from glucose.

The Board performed a large amount of routine work, such as auditing of bills, and adjourned until October 12, 1880.

CAUSES OF SICKNESS IN MICHIGAN.

Reports to the State Board of Health, Lansing, for the week ending July 17, 1880, by sixty-five observers of diseases in different parts of the State, show causes of sickness as follows:

DISEASES OBSERVED.	BY OBSERVERS.	
	NUMBER.	PER CENT.
Asthma	1	2
Brain, Inflammation of	3	5
Bowels, Inflammation of	13	20
Bronchitis	27	42
Cerebro-spinal Meningitis	1	2
Cholera Infantum	31	48
Cholera Morbus	46	71
Colic	1	2
Consumption, Pulmonary	42	65
Croup, Membraneous	0	0
Diphtheria	17	26
Diarrhœa	57	88
Dysentery	25	38
Erysipelas	15	23
Eyes, Inflammation of	1	2
Fever, Intermittent	58	89
Fever, Remittent	38	58
Fever, Typhoid (Enteric)	7	11
Fever, Typho-malarial	13	20
Influenza	8	12
Liver, Inflammation of	1	2
Measles	14	22
Neuralgia	35	54
Pneumonia	11	17
Puerperal Fever	4	6
Rheumatism	39	60
Scarlatina	6	9
Small-pox	0	0
Tonsilitis	17	26
Whooping-cough	27	42

By the last column it will be seen that the most widely distributed disease was intermittent fever (ague); next to that diarrhœa; next to that, cholera morbus; no case of small-pox; scarlet fever in only nine per cent. of the localities.

HENRY B. BAKER,
Secretary State Board of Health.

REVIEWS.

THE MANAGEMENT OF CHILDREN. By Amie M. Hale, M.D. Philadelphia, Presley Blakiston; Jansen, McClurg & Co., Chicago. Price fifty cents.

This book of one hundred and ten pages is addressed mainly to mothers, and is, therefore, to be estimated on the basis of its value to mothers as a guide in the health of children. Its value is fully up to the average books of that class. Its precepts are sound, and ought to have a wider recognition than is ordinarily given to them by mothers.

NASO-PHARYNGEAL CATARRH. By Martin F. Coomes, M. D. Louisville: Bradley & Gilbert, 1880.

In bringing before our readers more than a mere notice of this book, we do not refer so much to its individual merits or faults as to the class to which it belongs. As often as an opportunity may present itself, we think it a duty to protest decidedly against a certain style of medical literature, unfortunately but too common in this country. This book would have been written just as well by anyone else of fair capacity in the profession. We fail to find in it a single new idea, not even one statement which cannot be obtained from other sources, or to which the author adds the weight of his authority. The book is simply a readable compilation, by an author who has himself seen what others have described previously. Viewed from this standpoint, it may be of use to students, as well as to the "busy practitioner" with limited library. The chapter on anatomy of the nose is a good selection from various standard works, although it looks like a bad slip to speak of the tonsils as a group of muciparous glands. Some remarks on the physiology of the soft palate, etc., might have been in place here, but are omitted. The clinical descriptions and the therapeutic advice are fair, but not characterized by any great thoroughness. The corresponding chapter in Ziemssen might, no doubt, have been drawn upon more fully to advantage. The recent contributions of various European authors to the pathology of nasal diseases are ignored. In prescribing the treatment, we still meet with the once popular notion that the reader should not question what would occur without treatment, and what would occur if he were to substitute other procedures. It is high time that the authors of text books began to appreciate that the student is not only to listen and obey, but also to think. The authors abhorrence of the nasal douche is without sufficient foundation.

In the chapter on the causes of catarrh we meet with a full, and evidently bona fide account of the "asthmatos ciliaris," the fabulous rhizopod discovered in the secretion by Salisbury and Cutter. This creature has not yet lost its resemblance to nasal ciliated epithelium. As long as the claim of this ciliated "rhizopod" to be the producer of infusorial catarrh rests simply upon its presence in that disease, without any proofs that it is not the altered epithelium, or that it can be cultivated or inoculated with success, we cannot but advise rigid scepticism.

HEALTH AND HEALTHY HOMES. A Guide to Domestic Hygiene. By George Wilson, M.A., M.D. With notes and additions by J. G. Richardson, M.D. 314 pages; Philadelphia, Presley Blakiston, 1880, Chicago, Jansen, McClurg & Co.

The author of this work is a prominent English sanitary official, and its American editor is professor of hygiene in the University of Pennsylvania. It comes to us, therefore, as we may say, from a respecta ble parentage, and with a *prima facie* presumption in its favor. A popular work on hygiene is to be judged not by what it contains that is new, which cannot, under the circumstances, be much, but from its plan and method of stating the facts of its subject. The present volume will stand examination in this regard; it is readable and well arranged. The author discusses in his opening chapter the general subject of sanitation, the value of sanitary regulations, and the possibility of reducing the death-rate through their agency; then, in the following seven chapters, in regular order, the simple facts of human physiology; the causes of disease; food and diet; cleanliness and clothing; exercise, recreation and training; the home and its surroundings, and in the final chapter, the infectious diseases and their prevention. It therefore covers a very large part, if not all, of the subjects of public and private hygiene, and will serve as a very useful popular manual on these matters. While it is written more especially for the conditions existing in Great Britain, the general principles are equally applicable here. We would personally disagree with the author in his defense of the moderate use of alcoholic drinks, qualified as it is, and we see from a judicious foot-note that the editor of this American edition, is also of our opinion. We do not believe that any work should be given as a guide in sanitary matters to the public, in this country at least, that authorizes the habitual use of even the milder alcoholic beverages. The public needs no encouragement in this matter from medical sources. Some statements of British facts, that sound strange to Americans, appear here and there, which have not been annotated by Dr. Richardson. Such, for example, is the statement that beef and mutton are all the more relished after decomposition has commenced. Generally, however, the editor's notes, few as they are, supplement the text very satisfactorily. The publishers' part of the work, the typography, paper and binding, are very good, and we can, in the main, endorse the book as it is now presented to the American reader.

SEATS FOR SHOP WOMEN.—Following the agitation of this subject by Mr. Edes in England and by the Philadelphia Medical Times in the United States, it is said that ninety business houses in Dublin have provided the seats.

BOOKS AND PAMPHLETS.

George M. Beard, M. D. What Constitutes a Discovery in Science.

A Reply to Criticisms on "The Problems of Insanity," with remarks on the Gosling Case. Delivered before the New York Medico-Legal Society, April 16, 1880.

Tennessee State Medical Society. Transactions of the Medical Society of the State of Tennessee at its Forty-third Annual Meeting, 1880.

Surgeon General. Quarterly Report of Medical Officers, United States Army, with their stations and duties, as reported to the Surgeon General, July 1, 1880, or at date of last report received at the office, Washington, D. C.

Nashville Medical College. Sixth Annual Announcement of the Medical Department, University of Tennessee, 1880–81.

The American Medical College Association.—Fourth Annual Meeting held at New York City, May 31, and June 1, 1880.

C. J. Lundy, M.D., Detroit. Diabetic Cataract, Iritis, Etc. A Clinical Lecture delivered at the Michigan College of Medicine. From Michigan Medical News, June 10, 1880.

C. J. Lundy, M.D., Detroit. Sympathetic affections of the eye. From Leonard's Illustrated Medical Journal, July, 1880.

Wm. R. Smith, M.D., Cairo, Ill. A case of Intra-Uterine Ichthyosis. From the American Journal of Obstetrics, April, 1880.

Edward Borck, M.D., St. Louis. Diseases of the Maxillary Sinuses. From the Indiana Medical Reporter, April, 1880.

William Warren Potter, M.D., Batavia N. Y. Remarks on Rectal Feeding in Disease. From the Medical Record, April 10, 1880.

C. L. Ingersoll, Professor of Agriculture, Perdue University. Progressive Agriculture.

Harvey W. Wiley, Professor of Chemistry, Perdue University. The Relation of Science to Agriculture.

George J. Engelman, M.D., St. Louis. Time of Conception and Duration of Pregnancy. From the St. Louis Courier of Medicine, May, 1880.

F. C. Hotz, M.D. Die Entropiumoperation am unteren Augenlide, Besonders. Separat-Abdruck a. d. "Klinische Monatsblatt für Augenheilkunde." Mai-Heft, 1880.

George Wilson, M.A., M.D. Health and Healthy Homes: A Guide to Domestic Hygiene. With Notes and Additions by J. G. Richardson, M.D., Philadelphia: Presley Blakiston; Jansen, McClurg & Co., Chicago, 1880.

Citrate of Caffeine a Diuretic.—Dr. W. H. Heath, of the United States Marine Hospital Service, has found this to be a very active diuretic. He employes it in cardiac treatment.

THE ARMY.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from July 14, 1880, to July 28, 1880.

The following promotions and appointments are published:

Webster, Warren, major and surgeon. His leave of absence extended one month, provided he furnishes satisfactory medical attendance during his absence. S. O. 124, Dept. of the East, July 27, 1880.

Greenleaf, C. R., major and surgeon. Granted leave of absence for four months. S. O. 158, A. G. O., July 20, 1880.

King, Wm. H., captain and assistant surgeon. Granted leave of absence for one month, with permission to apply for an extension of three months, on surg. certif. of disability. S. O. 87, Dept. of Dakota, July 21, 1880.

Winne, C. K., captain and assistant surgeon. Assigned to temporary duty at Ft. Brady, Michigan. S. O. 116, Dept. of the East, July 12, 1880.

Price, C. E., captain and assistant surgeon. Granted leave of absence for two months, with permission to apply for two months' extension. S. O. 154, A. G. O., July 15, 1880.

Comegys, E. T., captain and assistant surgeon. So much of S. O. 135, C. S., from these headquarters, granting him leave of absence on surg. certif. of disability, is revoked. S. O. 144, Dept. of Texas, July 19, 1880.

Gibson, R. J., 1st lieutenant and assistant surgeon. Having reported at these headquarters, ordered to report to the commanding officer Ft. Leavenworth, Kansas, for temporary duty. S. O. 155, Dept. of the Missouri, July 19, 1880.

Benham, R. B., 1st lieutenant and assistant surgeon. Having reported at these headquarters, is assigned to duty (temporary) at Ft. Snelling, Minn. S. O. 87, C. S., Dept. of Dakota.

Gorgas, W. C., 1st lieutenant and assistant surgeon. To report to the commanding officer, Ft. Clark, Texas, for duty. S. O. 147, Dept. of Texas, July 23, 1880.

Taylor, A. W., 1st lieutenant and assistant surgeon. Having reported at these headquarters, is assigned to temporary duty at Ft. Supply, I. T. S. O. 155, C. S., Dept. of the Missouri.

Long Island College Hospital.—An association of the alumni, was formed May 25, 1880. The secretary announces an alumni prize of one hundred dollars, to be competed for by essay, on any medical subject, to be awarded at the college commencement of 1881. A special meeting was held in the college amphitheatre, June 23, 1880, immediately succeeding the college commencement exercises. G. H. Atkinson, Class '73, 98 Pineapple St., Brooklyn, is the corresponding secretary.

Chicago Medical Review

Published on the Fifth and Twentieth of the Month.

E. C. Dudley, Editor.

EDITORIAL CORPS:

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Business Office, 60 Wabash Ave. Editorial Office, 70 Monroe St.

Vol. II. No. 4 CHICAGO, AUGUST 20, 1880. $2.00 a Year.

The Attitude of the Eastern Medical Colleges toward the American Medical College Association, has been a recent subject of discussion in most of the medical journals. The profession has been informed that those schools in New York and Philadelphia which have been members of the association, have withdrawn; some of them not long after its organization; others more recently. Various reasons have been assigned why these schools have ceased to act with the Association, and most of these reasons appear to take their departure from the mercenary standpoint. It now appears that in the attempts of the Association to advance the standard of medical education, the Western and Southern members of the Association have almost invariably stood in the front. This is true even of the smaller colleges, which, from the pecuniary standpoint, could least afford to make any change looking to higher requirements. If, therefore, in its attempt to elevate the standard of the profession, the influence of this Association is to be destroyed, the profession may point to the old and influential colleges on the coast of the Atlantic, as being in sympathy with that standard which has justly made the American diploma a laughing-stock in every civilized nation on the face of the earth.

Since many of these colleges which were foremost in the organization of this Association, and which were very enthusiastic on the subject of advancing the standard, withdrew at about the time when the standard began to be advanced, and gave no reason for withdrawal, we are at liberty to speculate on their motives from such facts as may be at command. The initial movement towards the organization of the association was made by the faculties of certain colleges in Louisville and New York. In Louisville existed a collection of professors who lectured in a college building to the students of the Kentucky School of Medicine during one term each year, and, in the same building, to the students of the Louisville Medical College, during another term. Virtually this was one college under two charters, and furnished the requisite two sessions for graduation in a single year. In New York, in its methods of admitting students, and in evading the invariable collection of full lecture fees, and in permitting graduation on short time, the University was peculiar. Long Island College Hospital, in Brooklyn, held its regular session from March to July. This permitted the disjecta membra, who had failed to pass their examination in February at the New York Colleges, to make themselves eligible for the Brooklyn examination in June. These things constituted a grievance to the other colleges of Louisville and New York. The question therefore presents itself whether these prime movers in New York and Louisville, who organized the College Association, did not attenuate the heroism which they felt for the welfare of the profession, with their private grievances. Louisville's one college, under two charters, experienced a change of heart, and the Louisville brethren remain firm in the faith of the Association. In New York the University would not be muzzled, and Long Island continued to furnish a regular spring session. Is it possible that Bellevue and the College of Physicians and Surgeons have repudiated their professed principles, and abandoned the Association, because it failed to remove the cause of their private grievances? We should be glad to believe the contrary, but the failure of these institutions to assign any reason for their

backward movement, renders them liable to suspicion. Other motives might be assigned less creditable, if possible, which would apply not only to the colleges in New York, but also to those in Philadelphia and Boston. The Philadelphia Medical Times, in a recent editorial, sums up the subject very ably in the proposition that "the jingling of the guinea heals the hurt that honor feels."

The Death of Dr. F. H. Davis.—Our readers, we are sure, will sympathize acutely with Dr. N. S. Davis, of this city, so well known to the profession in the United States, in the death of his eldest son, Dr. F. H. Davis, after a long and painful illness. He had already entered fully upon the practice of his profession, and was making rapid advancement in the path to distinction as a physician, following in the footsteps of his honored father, with whom he had been in some degree associated in professional labors. He was possessed of an active mind, had generous ambitions, was devoted to his profession, and was an upright, public-spirited citizen. In the month of June last he received an injury which led to prostatic abscess, which proved very painful and exhausting to an over-sensitive organization. Before he had recovered from the prostration resulting from the acute prostatic disease, nephritic and perinephritic abscesses set in, which, with the disorders growing out of them, terminated his life August 18. We but voice the sentiment of the profession and citizens of this city in extending a hearty sympathy to his father, and to his bereaved family.

The Introduction of Tracheal Tubes by the Mouth has been successfully attempted by Dr. William Mac Ewen. He publishes his observations in the British Medical Journal of last month (Nos. 1021 and 1022). His results are sufficiently encouraging to render the communication a matter of duty, since the method seems to promise new and fertile resources. He, indeed, was not the first one to suggest it. In a historical resumé he gives the credit of having suggested it to Desault, who had accidentally passed a catheter into the trachea instead of into the esophagus. It is needless to follow here his historical notices since it is only for about four years that the matter has been rendered at all practical by Schrötter. Schrötter, however, practiced dilatation only in chronic cases of laryngeal stenosis, using a triangular rubber tube. Others have substituted ordinary round tubes. But Hack alone deserves the credit of having attempted successfully the catheterization of the larynx in an acute case, which he published in Volkmann's "Sammlung klinischer Vorträge," Nov. 1878. About the same time Dr. Mac Ewen commenced his observations. He experimented in the first place on the cadaver, and recommends this practice as very useful. He found the large catheters, Nos. 18 to 20, could be more easily introduced than small ones. It is only necessary to introduce the finger into the mouth, depressing the epiglottis on the tongue, and so guiding the tube over the back of the finger into the larynx. From his description it does not seem difficult to accomplish in the living being. He quotes two cases of edema of the glottis in which the catheter was inserted with complete relief, thus obviating the necessity for tracheotomy. The introduction was aided by causing the patient to inspire deeply. The tube causes at first some coughing, but is soon tolerated. He has kept it in place as long as twelve hours at a time, removing it only in order to cleanse it. The utility of a harmless procedure, like the one described, as a substitute for the bloody operation of tracheotomy ought not to be underrated. The author's experience extends also to two cases of bloody operations in the pharynx, in which breathing was carried on through a wide catheter passed through the glottis and extending beyond the mouth. This method proved quite successful as a substitute for Trendelenburg's tampon canula. In one of these cases a sponge was put on the glottis, surrounding the catheter, and preventing the entrance of blood into the trachea. The chloroform was of course inhaled through the tube. In the second instance the tube was also well borne, but the patient removed it voluntarily and died from the effects of the chloroform. The post mortem showed that the only lesions possibly caused by the tube were three small ecchymoses above and below the vocal chords, no larger in size than a barley grain.

Tracheal Tubes.—Dr. Mac Ewen's paper, of which the foregoing is an abstract, closes with the following tentative deductions: I. Tubes may be passed through the mouth into the trachea, not only in chronic but also in acute affections, such as edema glottidis. II. They can be introduced without placing the patient under an anesthetic. III. The respirations can be perfectly carried on through them. IV. The expectorations can be expelled through them. V. Deglutition can be carried on during the time the tube is in the trachea. VI. Though the patient at first suffers from a painful sensation, yet this passes off and the parts soon become tolerant of the presence of the tube. VII. The patient can sleep with the tube in situ. VIII. The tubes, in these cases at least, were harmless. IX. The ultimate results were rapid, complete and satisfactory. X. Such

tubes may be introduced in operations on the face and mouth, in order to prevent blood from gaining entrance to the trachea, and for the purpose of administering the anesthetic, and they answer this purpose admirably.

Dietetic Treatment of Cancer.—Professor Beneke, of Marburg, publishes in the Berliner Klinische Wochenschrift, No. 2, 1880, a paper on this subject, the following abstract of which may be found in the London Medical Times and Gazette, June 26, 1880, and in the Medical News and Abstract, August, 1880. He repeats a former suggestion of his to the effect that by dieting patients with cancer, and especially those suffering from its soft forms, with food from which the albuminates, the alkaline and earthy phosphates are to a great extent excluded, much may be done to check the abnormal cell-proliferation and prolong, if not save, the patients' lives. He assumes that cancer-cells are relatively rich in cholea-stearin, leathin and the above-mentioned phosphates, and the great source of these is animal food. Hence Dr. Beneke's cancer diet allows only fifty grammes (barely two ounces) of meat, weighed before cooking, per diem, supplemented with a little fish in the form of anchovies, sardines a l'huile, or fresh herrings. Butter, sugar, rice, sago, potatoes, cream, nearly all kinds of fruit and green vegetables, are allowed, but bread is given sparingly or replaced by biscuits in limited quantity, and milk is excluded. As drinks, black tea with cream, cocoa, light Moselle or Rhine wines, and occasionally champagne, are allowed. Beer, owing to its richness in alkaline phosphates, must only be sparingly taken. Professor Beneke gives a diet table for each meal in the day, the details of which we have not space to insert. He calculates that by following his rules the normal ratio of the nitrogenous to the non-nitrogenous constituents in ordinary mixed diet, namely, 1–5, can be reduced to 1–8 or 9. The potassium salts also enter the body, chiefly as vegetable combinations, and not as phosphates, and the alkalinity of the blood serum is thereby increased so as more nearly to resemble its condition in the herbivora, in whom Professor Beneke remarks, cancer is very rare. In answer to the possible question, "Can a man exist on a diet so deficient in nitrogen and phosphates?" he quotes the ipsissima verba of several patients in the affirmative. One of these, an Englishman (affected, however, not with cancer, but with rheumatoid arthritis), has persevered in it for six years, with gain of weight and muscular force, as well as, also, according to his own statement, of mental vigor. As to the practical value of the method there is at present little to be said. Professor Beneke can only muster eight cases in which it has been tried, five by Esmarch and Oldekop, and three by himself. Two of the five were too advanced for operation, and soon died; two others also died after several operations. The fifth, a simple cancer of the breast, which was also treated with liquor arsenicalis, was operated on without relapse. Beneke's own three cases were all alive at the last report. It would be easy to try the diet on a large scale, either at the Cancer Hospital or in the cancer wards of the Middlesex Hospital, but, as Beneke insists, it must be strictly carried out, and the theoretical principles on which it is founded must be steadily kept in view by the surgeons in charge. To those patients who require more fat than is prescribed in the diet table, and who cannot tolerate butter, cod's oil may be given. Those inclined to corpulence should take small doses of Carlsbad salts regularly during the "cure." In conclusion, Beneke points out that if, as is probable, the cancerous and the scrofulous diathesis are in many ways diametrically opposed to each other, what his dietetic system seeks is to reduce the former to the latter.

The Influence of the Permanent Lukewarm Bath Upon the Temperature in Typhoid Fever, is the title of a short but important communication by L. Riess, in the Centralblatt, (No. 30, 1880). His experience with baths of low temperature, but of short duration, although the same as that of other observers, has not been satisfactory to him. The effect lasts sometimes but one-half hour to one hour, and during the acme of the fever such cold baths must be repeated too often. After some experimentation the author has found better results from the use of permanent baths, at the temperature of thirty-one degrees centigrade. The patient rests upon a sheet fastened like a hammock in his bath-tub, and finds himself quite comfortable in this position, for hours or even days. The results were of the most satisfactory kind. Within twelve to twenty-four hours the temperature reaches the normal point, or sinks a little below this. The rare exceptions are some very obstinate cases, especially in the earliest stage of typhoid fever. On leaving the bath the temperature rises again, but so very slowly that as a rule it suffices to resort to a bath but once a day, for a few hours toward evening. When the temperature did not sink below thirty-nine degrees centigrade, in exceptional cases, the desired effect was produced by lowering the temperature of the water to twenty-two degrees centigrade, during half an hour. The temperature once well under control, Riess found it sufficient to prescribe the bath only when the rectal temperature reached thirty-eight and one-half degrees, and to dis-

continue it when it had fallen to thirty-seven and one-half degrees.

On the strength of his experience the author attributes to the permanent bath the first rank among antipyretic methods. He does not presume to decide whether the permanent bath shortens the duration of typhoid fever. In some of his cases no rise of temperature occurred after the seventh or eighth day. The time of treatment with baths varied in forty-two cases, between seven and thirty-eight days, the average being eighteen and one-fifth days. Amongst forty-eight cases three deaths occurred.

The method influences also other typhoid symptoms in a favorable manner. The pulse remains frequent, but also strong, while the cerebral symptoms were decidedly improved. In but few cases were there any pulmonary or intestinal complications. In some other febrile diseases the permanent bath was also used with good antipyretic effect.

A Collection of Data at Autopsies.—This is the heading of a brief paper published in the Boston Medical and Surgical Journal, August 12, 1880, by Dr. H. P. Bowditch. From this paper we take the results of some measurements made by Professor Beneke, of Marburg, who has recently published his investigations of the absolute and relative size of various organs at different periods of life, and in different morbid conditions: I. Before the period of puberty, the aorta is larger than the pulmonary artery; after this period the relation is reversed. II. The aorta and pulmonary artery are smaller in the female than in the male, even at those ages at which the size of the body is greater in the female sex. III. In adult males the volume of the lungs is greater than that of the liver. In adult females the reverse is the case. IV. In men the volume of the two kidneys is less than that of the heart; in women it is greater. V. Children have a relatively larger intestinal canal than adults. VI. A sudden increase in the size of the heart occurs at the period of puberty. VII. The iliac arteries diminish in size during the first three months of life. VIII. The cancerous diathesis is associated with a large and powerful heart, capacious arteries, but a relatively small pulmonary artery, small lungs, well-developed bones and muscles, and tolerably abundant adipose tissue. IX. Pulmonary tuberculosis is often associated with an unusually small heart. X. In rachitis the heart is large and well-developed.

Absence of the Pericardium.—Chiari who is one of the pathologists succeeding to the rich material which formed the basis of Rokitansky's researches, and who has had frequent opportunities of observing rare and unique pathological conditions, such as the remarkable pancreatic lesions which we referred to in a recent number of the Review, now records an equally curious case, where in an adult dying of an intercurrent affection, and in whom there were no symptoms whatever indicating a cardiac disturbance during life, it was found on the autopsy that the heart was suspended freely in the left pleural cavity, that the pericardial sac was entirely absent, and that the phrenic nerve ran down in front of the heart. Aside from the presence of an accessory lobule at the upper lobe of each lung, there was no other anomaly in the body of this subject. We believe that the latter variation is not of any special importance, and that it and similar variations are not rare within normal limits. The absence of the pericardial sac is a very difficult condition to explain on embryological grounds, unless we assume that it is formed as usual, and atrophies and disappears in the sequel, or perhaps fuses with the visceral layer into one common entity.

The Psammoma Not a True Tumor Group.—On examining a neoplasm of the ovary, Flaischel found that while mainly composed of carcinomatous elements, it contained imbedded grains of a gritty feel, which proved to be identical with the little calcareous bodies found pathologically in the so-called psammomas, and normally in the acervulus of the pineal gland. This discovery led him to subject the question of the psammoma to a critical study, and in the current volume of Virchow's Archives he states that these calcareous grains may occur in very different tumors, as mere features of metamorphosis and nutrition, and of no essential modifying nature as far as the tumor is concerned. He would, therefore, discard the term psammoma, and speak of a psammo-sarcoma, psammo-fibroma, etc., to indicate at once the fundamental character and the existence of the calcareous grains in the substance of such tumors.

Echinococcus a Cause of Fracture.—Kanzow describes a case of fracture of the femur which is as rare as interesting in its etiology. The patient had previously had an ordinary fracture of the femur which united within the usual period; a year after, he was walking in the street and suddenly fell down, and was found to have a complete fracture of the same bone. He died shortly after with the symptoms of hepatic echinococcus, and on the autopsy it was found that a multilocular but barren parasitic cyst had developed in the medullary cavity of the femur, reducing the compact bone to a mere shell, and thus provoking the fracture. The case is reported in Virchow's Archives.

The Human Tail.—Virchow makes the receipt of a communication about an alleged case of tail in man from one of his Greek correspondents, the occasion of a full review of this subject of caudate human beings. He considers the condition of so-called sacral trichosis, in which a large tuft of hair is found at the sacral region as related hereto. When he speaks of such instances in which the hair was five centimeters long, we think that he has discovered the only true and directly ancestral trait in this direction, for a tuft of that character is all that represents the tail in the anthropoid apes. There is a fundamental misappreciation of this question among the laity, and even many scientists. In the light of the evolution doctrine, the immediate ancestors of the human species were as tailless as the modern race, and their nearest relatives, the orang, gorilla, chimpanzee and gibbon. The presence of a true tail in a human being, could therefore be regarded only in one of two lights, either that of an, as it were, hap-hazard monstrosity, or an atavism in the sense of the preservation of an early embryonic feature. As illustrating how firm a hold the tail delusion not only had on Lord Monboddo, who patiently watched the midwives, being firmly convinced that they pinched off the tail of the new born surreptitiously, and who placed profound credence in the existence of a central African tribe with long tails, but has on the popular mind at the present day, we may refer to the stone man, exhibited in New York some time ago. This was the figure of a giant, claimed by the exhibitor to be petrified, so and so many years ago; the ingenious manufacturer had been cautious enough to provide this figure with a tail, as a proof of the great antiquity of the race, to which the fossil belonged, and this simple addition did more to provoke curiosity and interest in the sight-seers than the most genuine and veritable missing link could have caused. Among well authenticated examples of human tails, Virchow describes at some length, that of an infant born in Oldenburg, which was said to have moved, and was coiled up like a pig's tail. He suspects that among certain little studied races, Tartars, Greeks and possibly some African tribes, this feature may be of more common occurrence than in our own, as the testimony of numerous travelers is too concurrent to permit us to look on their statements as the repetition of some idle gossip, picked up among the peoples with whom they sojourned. He finds in such tails as he had the fortune to examine, no true vertebral elements; the only feature which exhibits its homology is a central cord, representing perhaps the chorda dorsalis. This would correspond to the observations of embryologists, who have failed to find anything beyond the chorda and atrophied remnants of the medullary tube in the caudal appendage, which all human embryos have at a certain period, and which is not as it is commonly figured, bent forward in the median plane, but as we have observed in one finely preserved embryo of the third week, twisted in an oblique spiral towards the right side. From the analogy in structure we consider the tail found in the new born human being, as the persistence of an embryonic feature, like the congenital cysts of the neck, which represent unobliterated branchial slits like hair lips, ectopia cordis, and polydactylism.

Rupture of Bloodvessel in Spinal Cord.—The spontaneous rupture of blood vessels, common as this accident is in the encephalon, is exceedingly rare in the cord, and Hayem has gone so far even as to question its occurrence, believing that a myelitic softening must precede the extravasation and facilitate the latter's occurrence. Page, in the Lancet, rereports a case where a girl after some preliminary symptoms, such as stiffness and pain in the nuchal and left brachial regions, intensified on forced movement, died while straining at stool, and on the autopsy a blood-clot of the size of a bean was found on the anterior aspect of the lower cervical cord. We have no doubt that the hemorrhage itself occurred during the straining, and as its direct result, but the very existence of the premonitory symptoms places this case among those which are in favor of Hayem's view. On the other hand we are not disposed to deny the possibility of spontaneous rupture in the course of over-exertions, there being some well authenticated cases of this in veterinary pathology.

Amputation in Old Age.—The influence of the age, upon patients as to the prognosis for amputation ,has been made an object of statistical investigation, by Dr. Max Oberst, (Centralblatt für Chirurgie, No. 2, January 10, 1880,) who obtained his information in Volkmann's clinic. Up to the last few years it was considered an established fact that the mortality after amputations was to a great degree dependent upon the age of the patient; that is, that the mortality was considerably greater in the case of old people. Billroth writes in regard to this subject, that we used to learn that the scarcity of fat, a flabby condition and dryness of the subcutaneous adipose tissue, caused a liability to phlegmonous inflammation, and that this injurious complication was still further facilitated by the less vigorous condition of the circulatory system in old people; the latter condition favoring the partial mortification of the flaps, the subsequent poisoning of the wounds, etc. Formerly many surgeons used to speak about decreased

vitality, lessened power of resistance, augmented vulnerability, as contra-indications for amputations in aged patients. Now the antiseptic, Listerian method of operating, and after-treatment, has proved that these views handed down from our ancestors are entirely erroneous; that is, the age of the patient has not the slightest influence on the course and result of amputations, provided that the two following complications are scrupulously avoided: I. Septic influences on the wound, with a subsequent septic fever and, II. An unnecessarily great loss of blood. The cause of the higher death rate in operations upon old people is entirely due to the two last named factors, the injurious influences of which young persons are better able to withstand than old people. Our modern method of operating enables us to avoid both these dangers. The septic influences we may exclude by strict adherence to the antiseptic method in all its details. This must be carried out without the omission of a single one of all its minute precautions, and without theoretical comments upon the value of the germ theory, since we know that the surgeon who acts as a blind believer in the latter, is certain to obtain the best results. The loss of blood we are now able to reduce to a minimum by the use of Esmarch's elastic bandage, and by the careful ligation of every bleeding point, after the removal of the constriction. Since 1874, amputations have been performed upon two hundred and twenty patients, nine of whom died, or four and one-tenth per cent. Forty-eight were above fifty years of age. Of these two died, or four and seventeen one-hundreths per cent. Of the last named forty-eight, thirty were between fifty-one and sixty years of age, thirteen between sixty-one and seventy, four between seventy-one and eighty, and one patient eighty-four years of age, upon whom amputation of the femur was performed, and who recovered. Of these forty-eight amputatations, seven were of the forearm, six of the humerus, one disarticulation of the humerus, seven partial amputations of the foot, thirteen amputations of the leg below the knee, and fourteen amputations of the thigh. The two deaths occurred after amputation of the leg below the knee. One of the fatal cases was that of an old man aged seventy-four years, who was suffering from senile gangrene. He died from tetanus, toward the prophylaxis of which we are as yet powerless. The second fatal case was that of a habitual drunkard fifty-six years of age. He died sixty hours after the operation, in a sort of collapse, without having even recovered from the anesthesia. The condition of the wound was perfectly normal. The course of recovery in all of these cases was entirely without reaction. Neither phlegmonous inflammation, nor osteitis nor phlebitis were seen at all. In one half of the cases, healing by absolute first intention took place. In the other half the recovery was delayed, partly by slight aseptic sloughing in the margins of the flaps, and partly by slight fistulous suppuration. From the above named statistics are excluded the following complications: I. Amputation where sepsis had already set in before operation. II. Amputations made on individuals having grave internal injuries. III. Double amputations. IV. Disarticulations of the hip-joint, and, V. Cases in which the patient died from disease independent of the wound of operation.

Cerebral Thermometry Once More.–In our last issue we referred to the researches of a young French investigator, who advanced proof based on crucial experiment, of the utter fallacy of the conclusions of those engaged in the surface thermometry business. We have not ourselves subjected the matter to actual experiment, for, to our mind, the application of a few well established physical laws to the equally well studied states of the encephalic circulation, would alone prove sufficient to demonstrate beyond the possibility of a quibble, the absurdity of the matter, and to devote time and apparatus to the formal contradiction of a vagary which will collapse spontaneously, did not seem necessary to us, in view of the shortness of life and the great number of more promising outlooks for experimental energy.

Before the cerebral thermometrists can even claim a respectful hearing, they must demonstrate. I. That the heat evolved in a solid body suspended in a fluid is not instantly dispersed in that fluid, as the science of physics teaches, for the cerebral cortex is bathed in the arachnoid fluid. II. That a body of the temperature of the blood, the brain, containing chiefly elements of a semifluid consistence, and riddled with vascular and lymphatic passages, and supplied continuously and at a rapid rate, from a distant source, (the heart), by a fluid of uniform temperature, can have its temperature raised at any point without that rise being diffused in the surrounding substance. III. That a solid body whose temperature is continually exposed to the sources of diffusion mentioned, will indicate its temperature through three layers of substance kept at a certain temperature by the blood-supply and by conduction, namely, the cerebrospinal fluid, the cranium, and the pericranium. IV. They must demonstrate that their experiments have not included sources of error, such as the greater temperature directly over the arterial trunks, and the afflux of blood sympathetic with voluntary muscular exertion. The burden of proof rests on the shoulders of all those who are innovators, and especially on those who, like a certain young New York cerebral

thermometrist, advance their propositions with much confidence, travel across the Atlantic in order that the Societé de Biologie may not lose the opportunity of hearing their results at first hand, and, when courteously shown their error by such a physiologist as Paul Bert, find a friend who contributes to a cis-Atlantic medical weekly a sneer at Bert, and disposes of the latter's exceptions as being—far-fetched.

The Pathogenesis of Congenital Cardiac Anomalies.—In a philosophical paper contributed by Buhl to the Zeitschrift für Biologie, we note a very clear and plausible explanation of the greater frequency of right sided lesions in congenital endocardial disease, as compared with the acquired affections, which are left sided, at least in the beginning. He traces all such disorders to irregularities in the development of the great common arterial trunk, or to inflammatory stenosis of the pulmonary artery. He shows how the latter condition may be in its turn the result of an anomaly in the blood pressure, and due to an early embryonic or fœtal fault of development. If an endarteritis obliterans has once started in the pulmonary artery, it will react on the pulmonary valve and cause an ultimate extension to the tricuspid of its deleterious influence. Dr. Buhl classifies the congenital cardiac affections as follows:

I. Those due to abnormal division of the truncus arteriosus communis. Under this head fall. (*a.*) Narrowing of the pulmonary orifice, reaching even to complete atresia. This condition is divisable into two sub-groups; in

(1.) There is no transposition of vessels or defect in the cardiac septum, but the duct of Bottall is open.

(2.) In the other there is such transposition and the septum is defective.

(*b.*) Is accompanied by dilatation of the pulmonalis.

II. Those due to inflammatory stenosis of the pulmonary artery.

Here, aside from the results of the stenosis and inflammation, the cardiac shape and relations are normal with the exception of the foramen ovale, which is, with this condition, always open.

Lingual Lichenoid.—In the Revue Mensuelle, Vaulair describes, under the designation Lingual Lichenoid, a peculiar, hitherto unnoticed state of the tongue, which consists in a serpigenous inflammation of that organ, causing atrophy particularly of the filiform papillæ. The curious physiological observation is made that while the sense of taste and touch are but moderately, if at all affected, the sensibility to pain is either exaggerated or entirely lost. The affection was first named by Gubler.

The Occurrence of Peptone.—In the Zeitschrift für phys. Chem. (Band iv., Heft iv.) we find some investigations by Dr. Hofmeister, which may lead to unforseen results. His researches commenced with the search for peptone in the urine. He criticizes some of the older statements, regarding its presence, and finds them untrustworthy on account of the method employed, for two reasons. In the first place, it is doubtful whether former observers succeeded in removing all the albumen before testing for peptone; and, in the second place, a source of fallacy is given in precipitating the peptone with alcohol. This latter reagent throws down also a substance giving some of the reactions of peptone, but, in nature, very nearly identical with mucin, a substance often present both in health and disease. The albumen may be removed most thoroughly, according to Hofmeister, by boiling with oxide of lead; but, since this requires a subsequent removal of the lead with sulphuretted hydrogen, he recommends the following very expedient method: To half a litre of the albuminous urine, suspected to contain peptone, are added ten cubic centimetres of a concentrated solution of acetate of sodium. Hereupon a concentrated solution of ferric chloride is dropped in gradually until the fluid remains red permanently. The acidity is now neutralized with some alkali, the fluid boiled and filtered. The filtrate is entirely free from albumen, but contains all the peptone.

If the mucin-like substance, simulating peptone is suspected, it may be removed by precipitation with acetate of lead and filtering. It is not necessary to add an excess of lead, hence the filtrate ought to be entirely free from it. The peptone itself may now be determined in the following manner: It is precipitated with a solution of tannin, and, after settling twenty-four hours, the mixture is filtered and the residue upon the filter washed with water containing some tannic acid and sulphate of magnesium. The addition of these reagents is necessary to prevent the washing out of the tannic acid. The residue is now thoroughly stirred up with saturated baryta water and boiled, after adding some pieces of solid baryta. Affer a few minutes it is filtered and the filtrate again violently shaken, in order to get rid of the last traces of tannin. The filtrate is now a pure solution of peptone.

For clinical purposes the author recommends the following even simpler method, based on the use of phosphoro-tungstic instead of tannic acid: To the urine is added about one-tenth of its bulk of concentrated hydrochloric acid, and the peptone is now precipitated by the addition of an acid solution of phosphoro-tungstate of sodium. It is now best to filter at once. The residue is now washed with

dilute sulphuric acid (three to five per cent.) Hereupon mix thoroughly with powdered baryta, and warm with the addition of some water. On filtering afterwards a pure solution of peptone is the result. The presence of the peptone in this solution may be detected with ease by adding the solution used by Trommer as a test for sugar, i. e., cupric sulphate precipitated and redissolved in an excess of sodic hydrate. A red or violet tint reveals peptone. As small a quantity as 0.2 gramme of peptone may thus be recognized in one litre of urine.

By means of these methods Dr. Maixner examined a series of specimens of urine in Hofmeister's laboratory. Peptone was thus found in the urine in many diseases leading to accumulation of pus, and especially in the third stage of croupous pneumonia. Its presence was determined also in two cases of phosphorus poisoning, and one each of typhoid, scirrhous, fibrious, pleuritic exudation and cancer of stomach. No peptone could be detected in the urine of nephritis. The various tests applied showed conclusively that the substance in question was really peptonized albumen. In fact by heating it dry to 160 degrees centigrade, it could be reconverted into albumen.

The Amount of Iron wasted in the vain hope of its absorption by the organism seems astonishing in the light of some quantitative estimations recently published by Dr. E. W. Hamburger (Zeitschrift für phys. Chem., Band iv., Heft iv., p. 248). This observer analyzed carefully the amount of iron taken in with the food, and the quantity eliminated by the kidneys. On adding iron to the food, in the form of a sulphate, it was found that the amount absorbed was in no proportion to the dose given. For instance, a dog which had received 441 milligrams of iron in the course of several days,discharged 413.4 milligrams of this amount with the feces, and but 12 milligrams with the urine, leaving 15.6 milligrams to remain in the system. Still it might be maintained that a larger amount is absorbed, but eliminated again with the intestinal secretions. In fact, such a view had been proposed by Lusanne. The author hence examined the bile but found no increase in the amount of its iron by administering good-sized doses of this metal. The intestinal juice had previously been examined by Quinke with similar negative results.

The Boston Medical and Surgical Journal of July 22, 1880, alludes to a recent accident in this city in the following equivocal manner: "We regret to learn that our Chicago correspondent, Dr. Norman S. Bridge, was lately the victim of an accident with an elevator, in which, by much presence of mind, he escaped serious injury."

Puerperal Fever.—The annual report of Queen Charlotte's Lying-in Hospital for 1879, contains a review of an endemic of puerperal fever. The follow- is abstracted from the British Medical Journal: Investigation failed to show that the fever had proceeded from over-crowding, defective sanitation, or ventilation. No other cases of fever had occurred in the vicinity immediately before or during the endemic. Shortly after the outbreak of the fever the porter was stricken with erysipelas. The inception of his illness was violent headache, sore throat and sickness which he experienced in removing certain batches of linen from the disinfecting apparatus. It then became known that, through ignorance, the porter had not properly used the apparatus in disinfecting the linen; that it had been taken from the oven damper than when it was put in, and, without being aired, distributed to the patients. Extended investigation revealed the following facts, which, coupled with the above, indicate that the fever was conveyed by, and probably originated in the linen:

I. The periodical outbreaks of fever, so far as could be ascertained, appeared to correspond with the returns of certain batches of linen from the wash.

II. Mothers and infants supplied with brand new linen did perfectly well.

III. Women who were doing well suddenly developed marked feverish symptoms, which corresponded with the change of linen.

IV. Cases suffering from puerperal fever, and convalescing most favorably, appeared to be restricken, and this occurred more than once in the same patient. Some of these cases recovered and some died. This necessitated latterly the use of brand new linen for infected cases, in order to give them a chance of recovery.

V. Infants were attacked with local erysipelas (nates et genitalea), after the application of certain linen which had been used by infected mothers.

VI. None of the nurses who slept in the wards with their patients were affected. The linen supplied to them was household linen, and was not used by the patients.

In the course of the investigation the following circumstances were brought to light, which probably had some bearing on the outbreak and spread of the disease:

I. Certain articles of linen were used by mothers and infants alike.

II. The linen had been habitually distributed damp and unaired, particularly on one floor, during the last six months.

III. That injunctions from the medical officers to return for stoving, all linen sent up from the stove damp, were disregarded.

IV. Infected and uninfected linen were sent to one and the same laundress.

V. The linen in use in the labor wards was the same as that used by the patients generally.

VI. There was no inventory made of the linen before it was sent to the wash; only on its return.

VII. For several months the soiled linen from the labor wards was mixed with the impure linen from the lying-in wards, and was kept together in closed cans for many hours. The labor-ward linen became so "heated through fermentation that it could hardly be touched." It is believed that this, amongst other things, was a most important element in the spread of the disease.

VIII. Disinfection with the ordinary disinfectants, even boiling and prolonged baking at a temperature of above 250°, do not destroy the germs of mischief in linen highly charged with septic impurities. This fact has been more than once observed by the medical officers. Each baking and boiling, it is true, they say, lessens the virulency of the poison; the attacks caused by it become milder, but still some germs of mischief remain. This was remarkably the case on the re-opening of the hospital in 1877, after the outbreak of fever in 1876. Although the hospital had been closed for three months, nearly every patient admitted on its re-opening was stricken with feverish symptoms, and erysipelas soon showed itself. The number of admissions kept on increasing, the patients attacked became fewer, and the type of the disease milder, until it finally disappeared. During this time the greatest care was taken to have the linen properly stoved, and the apparatus was in perfect working order. A consideration of these facts renders it surprising that the outbreak did not occur earlier. The precautions taken since the reopening of the hospital in September, 1879, have hitherto had the happiest results, every patient being treated on antiseptic principles.

Ethics.—A bill before the New York Legislature, contains the two following sections: I. It shall be, and is lawful for the physicians and surgeons of any medical school, duly recognized under the laws of this State, to meet in consultation in cases of sickness, with physicians of any different system of practice now recognized by the laws of this State. II. No county, state, or local medical society shall in any manner discipline or punish any member of said county, state, or local medical society for any aid, assistance, or counsel he shall render to any physician of a different school of practice.

We may add that it failed to pass, and the New York medical societies have still the regulation of heir own membership.

Nerve Suture in a case of old rupture of the radial nerve, was successfully performed by Langenbeck, in Berlin, November 26, 1879. (Berliner Klinische Wochenschrift, No. 8, Feb. 23, 1880). The case was as follows: The patient, thirty-one years of of age, received the following injuries September 5, by the falling of a ceiling; a large wound in the scalp: fracture of one of the lumbar vertebræ, with paralysis of the lower extremities, and finally, a large contusion at the outer aspect of the arm in its middle part, causing complete paralysis of the extensors of the hand and fingers. The skin of the dorsal aspect of the hand was not entirely anesthetic. There was no anesthesia of the fingers. The contused spot on the arm became necrotic, to the extent of a twenty-five cent piece, and an abscess formed a little below, which was opened. Healing by granulation gradually took place. In about two months the patient was able to get out of bed and attempt to walk. In walking he showed a slight paresis in the left leg, which disappeared soon afterward. The right arm now presented the following appearance: At the seat of the contusion was a round cicatrix, which was painful on pressure. The cicatrix was at the exact spot where the radial nerve, after leaving the posterior side of the humerus, takes its course downward, between the triceps and brachialis anticus. The extensor muscles of the hand and fingers were completely paralytic. They had remained flexed in pronation in the position given by Letiévant, when complete paralysis of the radial nerve has taken place. The slightly flexed fingers could not be extended, and the thumb could not be abducted. The paralyzed muscles were affected neither by the interrupted nor the uninterrupted electrical current. The sensibility of the palm of the hand and the fingers was perfect. The dorsal surface of the hand and forearm was anesthetic, though not within very well marked limits. On the dorsal surface of the forearm there was rather extensive edema of the skin. As it was evident that a division of the radial nerve had taken place at the seat of the contusion and subsequent sloughing of the right arm, it was resolved to make a suture of the nerve. The operation was performed November 25. After the application of Esmarch's bandage, and careful disinfection of the field of operation, an incision through the cicatrix six centimetres in length was made, and the soft, subcutaneous, adipose tissue removed. In the subjacent cicatricial tissue was found first the peripheral and then the central end of the divided radial nerve, about two centimetres from each other. The ends of the nerve were not enlarged, but were united by means of cicatricial connective tissue with the neighboring parts. They were now isolated from

the surrounding tissue, carefully denuded, and united by means of a catgut suture. The suture was applied by means of a fine round needle, passed through the end of the nerve, about one millimeter from the transversely cut surface. The difficulty of bringing the ends of the nerve in contact with each other by tightening the suture was now met with. This could only be done by producing so much tension of the nerve, that it was feared that the sutures would cut through. Putting the forearm in the position of extreme flexion did not relieve the tension. The wound was then thoroughly cleansed with a solution of carbolic acid, closed by sutures, a drainage tube inserted at the lower angle of the wound, the Lister dressing applied, and the arm placed in an obtuse-angled splint. The operator had but slight reason to hope that the nerve would unite, partly because the great tension at the ends of the nerves made him expect that the sutures would tear out, partly because microscopical examination of the tissue cut from the ends of the nerve, did not show it to contain any nerve fibres. December 9, the wound had healed by first intention, the antiseptic dressing was removed, and the arm simply placed on the splint. On December 14, the interrupted current showed a distinct reaction on the extensors of the hand and fingers; a kind of active motion seemed to have set in. December 20, the active motility had increased so that the hand and fingers could be extended almost to the level of the forearm. December 30; continued amelioration, the active extension of the fingers increasing, the anesthesia of the dorsal surface of the hand decreasing, the whole arm was considerably weaker than the healthy one, but the extension of the fingers was perfect. The patient was sent away from the hospital with the recommendation to continue the electrical treatment.

Recent experiments on animals have shown that a sciatic nerve divided and afterwards carefully united by sutures, (Gluck. Experiments on hens), regained its functions in seventy hours, the pneumo-gastric nerve in ten days. The nerve action is transmitted through an interposed substance of young connective tissue, not yet containing visible nerve fibres, but containing already, three or four days after the division, spindle-shaped cells, the protoplasm of which turns black after the application of osmic acid. When the ends of the divided nerve are immediately united carefully, a kind of healing by first intention takes place, and is completed in nineteen days. By this healing the fatty degeneration that takes place in the ends of the ununited nerves does not occur. The number of successful operations is as yet very small, three or four carefully observed cases being all. It seems to be a necessary condition that the operation wound shall heal without suppuration, and consequently the suture must be made of catgut. Happily enough it seems as if the divided motor nerves after being united, more readily regain their functions than the sensory nerves, a circumstance which is of great practical value as to the importance of the operation.

A New Anti-Neuralgic: Menthol.—Archibald D. MacDonald in a paper communicated to the Medico-Chirugical Society of Edinburgh, by Dr. Taylor, Jan. 8, 1880, and published in the Edinburgh Medical Journal, August, 1880, urges the claims of menthol as a new antiseptic and anti-neuralgic agent. Menthol is the stearoptine of peppermint oil, is a crystalline solid derived from the oil of peppermint by long keeping, or by being cooled to a low temperature. The American oil yields it at 0°C. Its chief source is the Chinese and Japanese oil. It is imported as Japanese camphor, in small white crystals, which have the peppermint odor, and resemble the sulphate of magnesia. In liquid or solid state it has a specific gravity less than that of water. It is rendered liquid and volatile at a temperature one or two degrees below that of the body. Some specimens, however, volatilize at a much lower temperature. It is very sparingly soluble in cold water. It liquifies slowly in water at 82°F., quickly at 120°F., but remains mostly as a separate layer. It dissolves freely in alcohol, in ether, in the fixed and volatile oils and in glycerine. The author publishes a series of experiments proving that this agent, which is the homologue of thymol, is an antiseptic of considerable power, but says that in Great Britain it will probably not come into general use as an antiseptic; but in India, China and Japan, or even in America, where the objections of small supply and high price cannot apply, its use is more to be maintained. One point is strongly urged in its favor, its volatilization at and a little below the temperature of the body, and its consequent adaptability for penetrating into every nook and cranny of wounds which are already putrefactive, slaying the bacteria, and rendering these wounds perfectly aseptic.

As an anti-neuralgic, the author believes the menthol to be of great value. One-tenth to one-sixth of a grain of menthol steadies the contractions of an excited heart, and slows them to a comfortable speed, and at the same time produces slight cerebral drowsiness. Half a grain of the crystals produced vomiting from gastric irritation. The author does not advocate its internal use unless well diluted. He deals with menthol as a local anesthetic. The application of oil of turpentine in facial neuralgia by the Chinese, was practiced at a very early date. It has also

been locally applied for gout, the relief in both affections being almost instantaneous. A priori, the author concludes that the oil cures in virtue of the menthol which it contains. Reference is made to seven cases. In the first case, tri-facial neuralgia, the affected tract was painted with a mixture of menthol, one grain; oil of clove, ten minims; rectified spirit, fifty minims. This was done four times in successive attacks. Entire relief followed in from four to six minutes. First a feeling of coldness, and then some irritation from the application was experienced. This case may be regarded as typical; menthol is particularly advocated as a temporizing remedy until constitutional treatment may take effect. It may prove to be more effective as an application than aconite, veratria or atropia. Its use in toothache is followed by immediate relief. In neuralgia it has been noticed to render the paroxysms less frequent and less severe. In sciatica, the author painted the track of the sciatic, popliteal and tibial nerves to the ankle-joint with a ten per cent solution, and this gave the patient immediate relief.

The Transmissibility of Tuberculosis by Milk.—The following is taken from the British Medical Journal, July 31, 1880. M. Puech, having recognized the existence of phthisis in a cow, which was sold for killing, and yet continued to yield three or four litres of milk daily, fed with the milk two sucking-pigs and two rabbits. He has communicated the following results to the Académie des Sciences. The animals, when killed, showed tuberculous lesions in strict proportion to the length of time the milk had been administered. These facts, according to M. Puech, show that phthisis is transmissible by milk direct from the cow. It remains to be determined whether this liquid loses its contagious properties when it is boiled. M. Bouley afterwards submitted to the Academy a jar containing fragments of the lung, liver, spleen, the phrenic centre of the diaphragm, and the bronchial and submaxillary glands of a pig five months old, killed sixty-seven days after an inoculation of two cubic centimetres of meat-juice, pressed with an hydraulic press out of a fragment of the ischio-tibial muscles of the tuberculous cow mentioned in M. Puech's note. This experiment was made at Toulouse, by M. Toussaint of the Veterinary College. Examination of the fragments in the jar showed tuberculous lesions in a very advanced condition. M. Bouley said that these facts, which demonstrate beyond doubt the transmission of tuberculosis from the cow by the alimentary use of unboiled milk, and the inoculation of the juice of uncooked meat, should not pass unnoted. In addition, they are not unique, since, in Germany, experiments of the same kind have been made, and have yielded identical results, to which, however, it does not appear that sufficient importance has been attached. The danger is, according to M. Bouley, indubitably a real one; and it is well that the public should be warned of it, so that they may take proper precautions, especially as the use of raw meat is now often prescribed as a remedy for anæmic disorders. The outcome of these facts is, that inspection in regard to phthisis occurring in cows should be extremely strict in the slaughter-houses, and that it would be prudent to make use of boiled milk, especially for the feeding of infants, when the source whence it is derived is not beyond suspicion. Cooking which destroys cellular and parasitic life, should render both milk and meat harmless.

Endemic Pneumonia, its Relation to Sewage.—In an elaborate article published in the Archives Générales de Médecine, Banti, of Florence, makes the observation that, in that and other Italian cities, endemics of pneumonia are frequent, the disease running a typhoid course. There is a pronounced tendency also to the hemorrhagic form. He finds that the endemic is apt to be most severe in the dryest summers, when the beds of the river Arno, and the sewers are more or less exposed and dried up. The dangerous period is from May to October. We have noticed that in an endemic of pneumonia which occurred in a large city some year or so ago, that a pronounced odor of sewer gas was manifested in the localities where the patients resided. The latter were chiefly young and vigorous men, and the disease ran an adynamic course, and presented many typhoid features.

The Antiseptic Use of Oil of Eucalyptus.—Repeatedly the attention of the profession has been called to the antiseptic properties of eucalyptol by Binz and his students. But we meet now, for the first time, an article based upon actual surgical trial of the substance. It is by Dr. Th. Siegen, published in the Deutsche Medicinische Wochenschrift, No. 30, 1880. He relates the following case of its use: A child of three years had a set of scrofulous glands removed from the side of the neck. Antiseptic precautions were used, but no other substance employed than eucalyptol. The blood covering the wound remained fresh, as well as the small amount of purulent secretion, and the large wound was completely cicatrized in eight days. The method employed was the following: The instruments were dipped in a two per cent. solution of eucalyptus oil,

the wound washed with the same fluid. Subsequently a moist dressing was applied in the following manner: Three grammes of eucalyptol were dissolved in fifteen of alcohol. To this were added one hundred and fifty grammes of water, which fluid suffices for the saturation of one metre of absorbent gauze. The gauze is applied moist and covered with gutta percha paper. This dressing produces neither cutaneous irritation nor eczema, even in scrofulous children. The second instance was an operation for genu valgum in a child of four years. A cuneiform piece of the tibia was excised under a spray of thymol, the fibula fractured, and, after extension, the wound was covered with a wet eucalyptus dressing. Within ten days complete union of the soft parts without suppuration or fever was affected.

Another instance was the resection of the elbow-joint in a child twenty months of age. Two months previously there had been suppurative arthritis treated by drainage of the joint, but still peri-articular abscesses formed, producing new fistulæ. The child was very febrile and reduced. The joint was resected under a spray of thymol, and washed with an eight per cent. solution of chloride of zinc, and dressed with thymolized gauze. After the second change of dressing the secretion was again fœtid and profuse. The parts were now thoroughly washed with a one per cent. solution of permanganate of potassium and dressed with eucalyptus gauze. Subsequently the wound had a perfectly aseptic course. A peri-articular abscess of the knee was opened and dressed with eucalyptus oil. At the time of publication it was nearly cured, having had an aseptic course. The author mentions also that he has used the solution of the oil in the strength of five per cent. without irritating the skin. A dressing containing five per cent. of eucalyptol need not be changed for four or five days, while a two per cent. gauze can be used only three days.

Pilocarpin in Intermittent Fever, is the title of a contribution which in preciseness of statement and sterling merit ranks very high. Dr. G. Griswold publishes in the August number of the New York Medical Journal his results on this topic. He calls attention, first, to some of the peculiarities of malaria not heretofore unknown, but often lost sight of. One of these observations is quite worth while reproducing, namely, that some periodic disorders, evidently due to a previous malarial infection, may be recognized by the use of the thermometer. Such annoyances as periodic headache, cachexia, and so on, sometimes depend upon a renewed outbreak of intermittent fever, not recognized as such by the patient, on account of the lack of other subjective symptoms.

The results with pilocarpin may be stated in the author's own words, which seem to us well justified conclusions from his observations: I. The muriate of pilocarpin, administered hypodermically, will promptly cut short the chill of malarial intermittent fever. II. In a large proportion of cases so treated, the paroxysm aborts, terminating in the sweat caused by the pilocarpin, there being no hot stage. III. Such an abortion of a paroxysm is in itself sufficient to effect a cure in many cases. IV. Such abortion of a paroxysm is a valuable adjuvant to treatment with quinine during the intervals. V. A dose of pilocarpin sufficient to produce this effect acts gently, without causing exhausting diaphoresis or unpleasant ptyalism. VI. The promptness with which an adequate dose of pilocarpin interrupts a chill, is suggestive of its possible efficacy in cases of pernicious intermittent fever, where prevention of the full development of a paroxysm is often of the first importance.

In six cases on which these conclusions were originally based, the injection was made during the chill. In five of them the paroxysm was at once aborted. In the sixth instance, a very large man, the usual dose, one-fifth of a grain, produced neither sweating nor did it influence the chill. "In seventeen cases pilocarpin was given before the chill. In five of these the medicine was administered hypodermically; diaphoresis resulted in from two to five minutes, and in every case the chill was prevented. In one of these cases a second dose was required two days afterward, which was again successful. Quinine was given in three instances, in small doses, (three to five grains three times a day). In the twelve remaining cases the muriate of pilocarpin was given by the mouth. In two instances the medicine failed to act, no diaphoresis being produced; in these cases the impending paroxysms were not prevented, but went through their usual course. In ten instances diaphoresis more or less marked, resulted in from ten to twenty minutes after the pilocarpin was taken; in all these cases the paroxysm was averted. In three of these twelve cases, including the two in which no diaphoresis was produced, it was found necessary to use pilocarpin again. About half of the twelve patients took quinine."

The author is in favor of the hypodermic method, using one-fifth to one-sixth of a grain, according to the size of the patient. By the mouth, as much as one-fourth of a grain may be necessary. In a large experience based not merely upon those cases referred to, he has seen that the effect depends upon the diaphoresis produced. Hence he assists the sweating

with warm coverings and warm drinks. He has also observed that the more the sweating is encouraged, the less salivation occurs. He does not exclude quinine from the therapeutic plan, but places his immediate reliance upon pilocarpin, which need only be given when the prodromata of the attack are felt. No good results seem to follow the administration of pilocarpin during the hot stage. In some cases the diaphoretic treatment succeeded when quinine had failed. In the words of the author, "vague and ill-defined malarial manifestations, headaches, neuralgia, etc., are very successfully treated by the administration of pilocarpin a few minutes before the time for their occurrence; the effect will be most satisfactory, when the disturbance in question is attended with some rise of temperature, and is distinctly periodic."

Utilization of Offal.—M. Vautelet, a French chemist, has lately brought to notice a process of treating all organic offal from slaughter houses for agricultural purposes, in place of the wasteful and unhygienic methods now in use. He uses sulphate of alumina, sulphuric acid, and nitric acid in definite proportions. By adding sulphuric acid to sulphate of alumina a bisulphate is formed, which, less soluble than the sulphate, quickly causes complete coagulation of the blood. Then the nitric acid causes coagulation of the albumen, and the formation of nitrates. The substances are in this way disinfected, while their fertilizing properties are preserved.

The International Sanitary Congress, to be held at Turin, will open on September 6, and close on September 12, instead of in August, as has been wrongly announced. The king, the ministers, the maire, the prefect, and all the officials will take part; the Minister of Foreign Affairs invites all foreign governments to send delegates; a reduction of 30 per cent. on the railway fares is also announced.

Hydrophobia.—M. Maurice Raynaud (British Medical Journal) inoculated a rabbit with the saliva of a hydrophobic patient, and the rabbit took the disease in five days. Two other rabbits inoculated with hydrophobic saliva also became hydrophobic. The conclusion drawn is that the saliva of hydrophobic patients is virulent, and that this fact merits more attention than is now generally given to it.

Japanese Doctors.—There are sixty-six hundred physicians in Japan who follow the western (regular) practice of medicine, and upwards of four thousand who adopt it in part. The Chinese style of medical practice is followed by nearly twenty thousand practitioners.

CONTRIBUTIONS.

*ON A NEW METHOD OF ARRESTING GONORRHŒA.**

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Having been for some time past occupied with the problem of the infective diseases of wounds, the subject of gonorrhœa, as an affection probably belonging to the same class of diseases, has occupied my attention. The extreme contagiousness of this disease, the existence of a distinct period of incubation, and the steady spread of the inflammation from a given spot, all strongly point to a parasitic origin. Acting on this idea, I made, in the spring of 1879, a number of inoculations of gonorrhœal pus, under certain precautions, into flasks containing infusion of meat or infusion of cucumber. In these flasks micrococci grew in large numbers, and also sometimes bacteria, showing that these organisms were present in the gonorrhœal pus. Circumstances prevented me from pursuing this subject further at that time. In the meantime Dr. Neisser published an elaborate research on this subject, in which he showed the presence of enormous numbers of micrococci in gonorrhœal pus, and in the pus from contagious ophthalmia. He further asserted that these organisms were always of a definite size, and that they differed in respect of size from the micrococci found in wounds. The presence of large numbers of micrococci in gonorrhœal pus has since been confirmed by several observers. Whether these micrococci are the cause of the gonorrhœal inflammation or not, I do not attempt to say, but the general history of the disease, taken together with these facts, points strongly to the idea that its essence consists in the growth of these or allied organisms.

If this disease be due to the spread of organisms, where are they situated? Several facts lead to the supposition that they are not only free in the urethral canal, but that they are also present in the substance of the inflamed mucous membrane. Thus, in the case of erysipelas, it has been demonstrated that the skin at the margin of the inflammatory redness is full of micrococci. Koch found, in his case of erysipelas in rabbits, that bacilli were present throughout the inflamed part and co-extensive with the inflammation. The same writer obtained progressive gangrene of the tissues in mice by the injection of putrid blood, and he has demonstrated conclusively that this gangrene is due to an organism, strepto-coccus, which is present in large numbers around the limits of the gangrenous part. A similar observation was made by him in a case of spreading suppuration in rabbits. Mr. Lister has long held the opinion that, in the case of putrid sinuses, the organisms were present, not only in the canal of the sinus, but also in the substance of the unhealthy granulation tissue lining them. This view has been justified

*From The British Medical Journal, July 24, 1880.

by the fact that, though formerly by the simple injection of the sinuses with antiseptics, he did not often succeed in eradicating the septic element, yet since he has adopted the use of Volkmann's sharp spoon, and has removed the layer of granulation tissue lining them, success is by no means uncommon. And, lastly, I have demonstrated that, though many forms of organisms will not survive if introduced into a healthy animal, yet, if an animal be previously in a state of ill health, these forms of organisms are not destroyed but may be found alive in the blood or tissues.

In the case of gonorrhœa, then, I suppose that, at the time of infection, a small number of the specific organisms, which in all probability possess a considerable resisting power to the destroying action of the healthy living tissues, are retained in the urethra; hat these go on developing, that the products of their growth irritate and weaken the mucous membrane in their vicinity, that the organisms can then penetrate into and live in that weakened tissue, and that the extension of this process over a portion of the mucous membrane of the urethra is the cause of the inflammatory symptoms.

Now, granting that this view, which I think must be admitted to be very probable, were proven, the problem to be solved for the cure of gonorrhœa would be how to destroy these organisms without at the same time injuring the inflamed and highly sensitive mucous membrane. If they were destroyed one would expect the extension of the disease to cease, and the inflamed mucous membranes to return more or less rapidly to a normal state. On thinking this matter over, two substances appeared to me suitable for this purpose, being both powerfully antiseptic and at the same time but little irritating. These are iodoform and oil of eucalyptus.

The next question was how to apply them. It is quite clear that, if used as an injection, there would be no certainty that they would be brought into contact with the whole of the inflamed surface, partly because the swollen mucous membrane would interfere with the passage of the fluid, and partly because the patient would not in many cases apply it effectually. At the same time an injection could not be expected to do much good, for it would flow out very quickly, and the antiseptic would not have sufficient time to act. I therefore use these antiseptics mixed with cacao butter, and made into bougies of various lengths. These bougies are introduced well into the urethra, and a strap and pad over and around the orifice retain them. The bougie rapidly melts, and the mucous membrane of the urethra remains bathed in the antiseptic material for any length of time desired. These bougies possess an additional advantage over injections in that from their size (they have a diameter of a No. 9 or 10 catheter, tapering at the point), they, so to speak, unfold the swollen mucous membrane, and thus cause the antiseptic to be more thoroughly applied.

I have tried the two antiseptics separately, and also combined, and I find that they are most effectual when used in combination (possibly because iodoform is soluble to a considerable extent in oil of eucalyptus, and is thus brought into more perfect contact with the mucous membrane). The formula which seems best is five grains of iodoform* and ten minims of oil of eucalyptus in a bougie of forty grains. These bougies have been made for me by Mr. Martindale, of New Cavendish street. The specific cause of the disease being eradicated by this means, the question of further treatment arises. It seems to me that, although the development of the gonorrhœa is arrested, yet, if the discharge be allowed to become septic and irritating, urethritis might be kept up for some time. I, therefore, order an injection of boracic lotion (saturated aqueous solution of boracic acid), or an emulsion of eucalyptus oil, (one ounce of eucalyptus oil, one ounce of gum acacia, water to forty or twenty ounces) to be used for two or three days. At the end of that time, injections of sulphate of zinc, two grains to the ounce, may be begun; as the same time, the great tendency of the urethral mucous membrane when once inflamed, to remain in a state of inflammation, must be kept in mind, and everything that might tend to keep up the inflamed state must be removed. Notably, the patient must be cautioned against drinking, and it is well to order diluents and alkalies.

The method may be summed up as follows: The patient is first told to empty his bladder, partly to clear out his urethra, and partly to prevent the necessity of expelling the antiseptic from the canal for several hours. He then lies down on his back, and a bougie from four to six inches long is introduced, and the orifice of the urethra closed by strapping. The bougie ought to be dipped in eucalyptus oil, or in carbolic oil (1-20) before insertion. The patient is instructed to refrain from passing water if possible, for the next four or five hours. If the case be severe and advanced, he takes another bougie home, and is instructed to introduce it in the same manner after he next passes urine. On that evening, or on the following day, he commences the antiseptic injection, which he uses four or five times daily. On the third or fourth day, when the symptoms have entirely subsided, an injection of sulphate of zinc, two grains to the ounce, is begun.† At the same time, the other points mentioned are attended to.

I have now used this method in about forty cases, and in all the result has been the arrest of the progress of the gonorrhœa. For a day or two the purulent discharge continues, but afterwards it steadily

*A considerable number of the cases have been treated with bougies containing ten grains of iodoform; but Mr. Martindale informs me that during the warm weather it is almost impossible to make them. I find, however, that bougies containing five grains are quite satisfactory, and I have had no symptoms of irritation following their use.

†In hospital practice, where the patient is only seen once a week and where there is no great necessity for arresting the discharge quickly, I do not order the sulphate of zinc injection till the week following the introduction of the bougies.

diminishes in amount, becoming in four or five days mucous, and ceasing altogether in a week or ten days. At the same time, the scalding and pain and the symptoms of inflammation rapidly diminish, and disappear completely in about thirty-six to forty-eight hours. In fact, the case becomes no longer one of virulent gonorrhœa, but one of simple urethritis, rapidly progressing toward recovery, if properly treated.*

I have used this treatment only in the early stages of the disease, from the first to the seventh day after the commencement of the symptoms; but it has answered equally well in all. Thus the following is the case in which it was used seven days after the commencement of the symptoms: The patient presented himself on June 19th, stating that the symptoms of gonorrhœa had existed for seven days. There was a profuse purulent discharge from the urethra; the penis was somewhat swollen and red; there was intense scalding when urine was passed, and a constant feeling of heat and uneasiness; no chordee; a bougie, containing ten grains of iodoform, and ten minims of eucalyptus oil, was passed down and the orifice closed in the usual manner. The patient was also ordered an injection of an ounce of oil of eucalyptus and an ounce of gum acacia, in a pint of water, to be commenced in the evening, and to be used four or five times daily. On the 19th he again presented himself, and stated that he had not passed water till five hours after the introduction of the bougie; that the scalding and feeling of uneasiness rapidly subsided, and had completely ceased in forty-eight hours; and that the discharge had steadily decreased from the second day, and was now very small in quantity. He was ordered the sulphate of zinc injection, which completed the cure in three days.

In one case, there was a recurrence of the symptoms. The patient, a hospital patient, first presented himself on June 5, stating that on June 2, five days after connection, a discharge had commenced, which had steadily increased, and was now profuse and accompanied with considerable uneasiness and scalding in passing urine. A bougie containing ten minims of oil of eucalyptus alone was inserted. No other treatment was ordered. On June 9th he returned, stating that after the introduction of the bougie the scalding and uneasiness had diminished, and had almost disappeared on the evening of the 6th; but that on the evening of the 7th they began to return, and were now more severe than on the 5th. I introduced a bougie containing ten grains of iodoform and ten minims of eucalyptus oil, and gave the patient another to insert at bedtime. At the same time I ordered the injection of the boracic lotion to be commenced on the following day. When seen again on the 16th, he stated that this treatment had been successful, and that now the discharge was very slight. An injection of sulphate of zinc, and a mixture containing copaiba were ordered, and the discharge ceased entirely on the 20th.

In two or three cases, there has been slight increase in the scalding on the first or second occasion on which the patient passed urine after the introduction of the bougies; but this has only been temporary, and in these cases were as rapid as the others. In four instances, however, there has been considerable increase in the symptoms for twenty-four or thirty-six hours. In three of these, the bougies had been made with beeswax, and they did not melt properly, and consequently came out of the urethra at various periods as small cakes. Further, it seems that some iodine had been set free from the iodoform, probably during their manufacture. In the fourth case, four bougies, each containing ten grains of iodoform were introduced in succession. In all these, however, the symptoms passed off in about three days, and then the gonorrhœa was found to be checked, just as in the other instances.

Such are the results as yet attained by this method. I do not claim any specific power for the two substances I have mentioned. It may be that there are other antiseptics which would be more suitable, and I intend to test any which seem likely to yield good results. Whatever substance be used, however, I venture to think that the results already obtained show that the principle on which it ought to be applied, and on which it will prove most satisfactory is that which I have attempted to indicate in this paper.

My thanks are due to my colleague, Mr. Royes Bell, for having allowed me to use some of his cases; and to Mr. Farmer, the assistant house-surgeon, for carrying out the treatment in these instances.

*The course described here is that usually followed when boracic lotion has been employed as the injection; but since I have begun the use of the eucalyptus emulsion, the cessation of the discharge has, as a rule, been more rapid. Thus to give an example, a patient came to the hospital on July 3, with symptoms of gonorrhœa, which had lasted four days. He was suffering from a very acute attack, having severe scalding and commencing chordee. He had not previously suffered from gonorrhœa. A bougie containing five grains of iodoform and ten minims of eucalyptus oil was introduced, and he was ordered to begin an injection of the eucalyptus emulsion (1 in 40) in the evening. The patient showed himself again on July 7, and stated that in twenty-four hours, the painful symptoms had entirety disappeared, and that the discharge diminished rapidly, and ceased altogether on July 6. I have since that time had several nearly as rapid cases. I have tried in three cases injections of eucalyptus emulsion without previous introduction of a bougie, but without any appreciable effect on the progress of the disease.

CATARRH OF THE UPPER AIR PASSAGES.

A Lecture Delivered

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Chronic catarrh of the upper air passages may be inflammatory or not in its origin. By far the greater number are of the inflammatory variety. The disease may be limited to the vault of the pharynx and post nasal openings, but generally implicates the mucous membrane of the pharynx and nose throughout the greater part of their extent. The non-inflammatory variety is generally limited to the membrane of the larynx and pharynx, the nasal membrane being but slightly, if at all, affected.

These two varieties present wide differences of appearance on inspection. In the inflammatory form the mucous membrane will be found thickened, congested and granulated, the granulations covering more or less completely the vault, sides and posterior walls of the pharynx and septum, and turbinated bones of one or both nasal passages. The membrane covering the septum and turbinated bones, will sometimes be found so thickened as to almost, if not completely, occlude the passage.

Ulcerations that are generally superficial with their long axis in the long axis of the pharynx, are most frequently found back of the posterior arches of the soft palate. Ulcerations occur in the posterior wall of the pharynx and in the membrane covering the septum and turbinated bones. In the latter situation they, in healing, often lead to adhesion of the membrane covering the turbinated bones to that of the septum. In these cases a permanent difficulty in breathing through the nose will be experienced. That portion of the nasal membrane affected will be of a red color, markedly in contrast with the normal pale pink color, and will be covered, more or less completely, with a muco-purulent material, consisting of mucus and broken down and new epithelial cells. This secretion is often tenacious and closely adherent to the membrane, being removed at times only with great difficulty. The membrane is constantly bathed in this irritating secretion which often has a very offensive odor, the disease being prolonged from this cause. The pharyngeal membrane will be of a brownish or blueish-brown color, very much thickened and congested; the thickening being due to an increase in the size and number of the blood vessels of the part, and to an infiltration of the serum of the blood into the meshes of the membrane, as well as an actual increase in number of the cell elements of the part. The membrane will be covered with a thick, tenacious material having the same constituents as that found on the nasal mucous-membrane. It will collect in little masses from the size of a shot to that of a bean, which lie along the sides and vault of the pharynx. These little masses give a great deal of discomfort, and are removed with much difficulty, the patient often rejecting a full meal in his efforts to dislodge the offending mass. Patients will often awake in the morning with a sensation as if a foreign body were in the throat, and will gag and hawk for hours before their efforts to relieve themselves of the offending mass will be successful. These patients always suffer from indigestion and loss of appetite. They become emaciated and will frequently imagine themselves the victims of consumption.

The appearance of the throat in the non-inflammatory variety is the opposite to that just described. The mucous membrane is lighter in color than normal, is thin, and *not* congested and thickened; large dilated veins are to be seen ramifying in its substance. Granulations are rarely found. The sub-mucous cellular structure is deficient in adipose tissue, giving the throat the appearance known as "Cavernous throat." The membrane is closely adherent to the vertebral column behind and to the cranium above. The secretion is at times very tenacious, composed of mucous and cast off epithelial cells. It resembles, somewhat, coagulated albumen in color and consistence.

The causes of chronic catarrh are both predisposing and exciting. Among predisposing causes the scrofulous diathesis stands foremost. This diathesis will be found to exist in a large number of all those affected with this disease. The strumous diathesis and inherited syphilis are the most frequent predisposing causes of catarrh in persons under fifteen years of age. An hereditary tendency to inflammation of the mucous membranes exists in a large number of persons. These persons will, upon any slight exposure, develop an inflammation of the membrane of the throat which manifests a great tendency to become chronic. The same exposure in one not having this predisposition will be followed by no result whatever, or by an inflammation of some other portion of the body. It is a recognized fact that in children born of phthisical parents, or of parents of broken down constitutions, from any cause whatsoever, there is a strong tendency to phthisical disease; also that in those children born and reared under unfavorable hygienic surroundings, a predisposition to lung disease exists. In such persons there is a *very strong* predisposition to chronic catarrh of the upper air passages. Debility and emaciation predispose to this disease.

The exciting causes are almost innumerable, prominent among which are the habitual use of alcoholic stimulants, dyspepsia, the excessive use of tobacco, improper use of the voice, the inhalation of irritating vapors, gases, dust, etc., exposure of different portions of the body to changes of temperature, damp, cold air, etc., wetting of the feet and lower extremities.

A cause, or at least an important factor in the causation of catarrh, which I have not seen mentioned in any work on diseases of the throat, and one which I think is of comparatively frequent occurrence, and often overlooked, is chronic Bright's disease. I do not wish to be understood as stating that chronic degenerative changes in the kidneys must always cause pathological changes in the mucous membranes of the throat, but that chronic Bright's, in those in whom a constitutional predisposition to inflammation of the mucous membranes already exists, will, to speak figuratively, act as the spark which explodes the magazine waiting to be ignited. When the pathological changes demominated catarrh already exist they will be increased in degree if there is an interference with the depurative function of the kidneys.

Since in Bright's disease the kidneys imperfectly perform their function, a greater or less amount of

effete and broken down nitrogenized material remains in the blood, in excess of that carried off by the kidneys; the mucous membrane of the upper air passages is called upon to assist in its elimination. The secretion of this effete material by the mucous glands irritates them, and induces congestion, which gradually increases in severity; as the congestion increases the secretion becomes more and more abnormal, until finally, after the lapse of months, a chronic catarrh results with a thick, tenacious secretion of a whitish or yellowish color. The breath in these cases has a peculiar sweetish, urinous odor; an odor not ammonacal, but one that once detected will be readily recognized ever after. The tongue and throat will be covered with a coating of cast-off epithelial cells. The patient will have little appetite and very imperfect digestion; headache will be an almost constant symptom. A disagreably, sweetish taste will be complained of, which will be worse in the morning.

TREATMENT.

In looking over the list of remedies recommended for this pathological condition, I only wonder that any one can be found so afflicted. In addition to the host of proprietary medicines recommended as sure cure, there are but few articles in our materia medica that do not enjoy the honor of having been recommended, at some time, as almost specifics for catarrh.

In the treatment of different cases as much good sense and discrimination must be exercised as in the treatment of different cases of phthisis. There is no one therapeutical agent that will cure all cases of catarrh, or even prove beneficial in all cases. The local application of salt and water at times does harm, and occasionally is very painful.

In nearly every case constitutional treatment is of the greatest value. In cases occurring in strumous subjects, cod liver oil, the syrup of the iodide of iron, iodide of potassa and general tonics, must be resorted to and persevered in for a considerable length of time. Small doses of a light wine, taken at meal time, are beneficial in those of a broken down or debilitated constitution, combined with a most nutritious diet; moderate "out of door" exercise, in a pure atmosphere, is a benefit, inasmuch as it acts as a general tonic to the whole system.

In those cases due to chronic Bright's disease, little can be hoped for in the way of cure, until the kidneys have been put in condition to carry on their normal function, and the general system attended to. Cod liver oil, strychnia, the bichloride of mercury, one-fiftieth of a grain twice or thrice daily, and Wheeler's compound elixir of calisaya, and phosphates may be given as general treatment. Saline diuretics, such as the various saline waters, or small doses of Carlsbad salts, dissolved in a large quantity of water, taken half an hour before breakfast, will, by increasing the elimination of urea through natural channels very materially assist in relieving the abnormal condition of the membrane affected.

Those having a constiutional tendency to catarrhal inflammations of the mucous membranes should wear woolen underclothing all the year, and should be particularly careful to protect the throat and neck from sudden changes of temperature, and from cold, damp air.

I believe that it is the sudden change of temperature experienced by those leaving a room with a temperature of 75° or 80°F., and going immediately into an atmosphere having a temperature of from 0 to 10°F., that causes a great many cases of this disease in this region, and not the want of moisture for which Minnesota air is so noted. A practicing physician in New Mexico, high up in the table lands, writes me that catarrh is unknown in his neighborhood, the atmosphere of which is as dry as that of Minnesota.

Whenever, from any cause, the normal function of the skin is checked, the mucous membranes are called upon to perform extra work; this can only be done by more blood being carried to the membrane than the membrane is accustomed to receive; congestion of the membrane results, which may be temporary and soon disappear, provided the skin resumes its normal function. If, however, one congestion after another follows in rapid succession, the membrane soon becomes permanently congested; a certain amount of infiltration of the membrane occurs and thickening results. In order to prevent this result, it is necessary to preserve a normal circulation through the capillaries of the skin and extremities.

In the great majorlty of cases a simple, mild vegetable astringent is all that will be required locally All nasal injections should be as warm as the patient can bear.

SYPHILIS AND CRIME.

*The Eradication of Syphilis and Crime by the Extirpation in that Class of the Procreative Power.**

BY GEORGE F. FRENCH, M.D., MINNEAPOLIS, MINN.

No disease is begirt with greater horrors or followed by more baleful consequences to the individual and the race than syphilis; and no disease entails so deadly a blight on posterity. Few physicians, even, seem to be aware of the extent to which this disease prevails in the world, as shown by statistics; and yet these figures, appalling as they are, do not embody one-half the truth; for the poor in hospitals are not alone infected, but every grade of society, from the hovel to the palace; there is no respect of persons or character; the unborn babe and the guilty criminal faring alike.

To wilfully contract a disease which may disfigure your face, rot your bones and put out your eyes, is actually praiseworthy compared with the crime of polluting the springs of life in your children and your race, starting from the shore of time a wave of disease which shall surge over the broad sea of humanity

*A paper read before the Maine Medical Association, June 11, 1878.

toward eternity, rendering the strong weak, the beautiful hideous, the innocent vicious, the happy miserable.

There is good reason to fear that syphilis is on the increase.

According to a scholarly computation as to the prevalence of syphilis, by Dr. F. R. Sturgis, in the city of New York, for the year 1873, out of a population of 942,600 there are 61,000 suffering with some form of venereal disease, of which 50,000 are syphilitics, and these figures, he believes, fall short of the actual number.

It is estimated that in London over a hundred thousand venereal cases are treated annually in the hospitals alone.

Professor Gross says, "Out of a population of 40,000,000, the present number of inhabitants in this country, it is safe to assert that nearly 2,000,000 are at this moment infected with the syphilitic virus."

Unquestionably, there is a vast amount of syphilis under other names. This disease becomes modified and disguised, after transmission through one or two generations, to such an extent as to lose its characteristic features; and I have no doubt of the correctness of Professor Gross's opinion in considering almost all the protean forms of scrofula as but manifestations of remote syphilitic taint; and, when you reflect that much scrofula and tubercle are identical, the extent of the evil can be more fully comprehended. Those who do not admit the identity of syphilis and scrofula, acknowledge that strumous diseases are largely fed from that source. Barwell says, "Three-fourths of the community have the seeds of some form of scrofula;" and Sir William Jenner affirms that the scrofulous diathesis is very largely the determining cause of infantile mortality. Of the mortality arising from syphilis we can form no adequate estimate. Comparatively few die in the primary stage of the disease; and, even when it does prove fatal in the secondary or tertiary period, the disease appears under an assumed name of euphemistic title. It would, therefore, be a great mistake to estimate syphilitic mortality from the records of venereal wards alone. To compute this fairly, we must take into consideration all the various forms of curable disease which become unmanageable from the effects or co-existence of syphilis. In the Sandwich Islands, in less than a century, the population has been reduced by this disease nearly seventy-five per cent. The infant mortality from syphilis is something appalling. According to the statistics of Dr. F. R. Sturgis, in Philadelphia and New York, eighty per cent. of all the children dying under five years of age is due to this disease; while "the number of abortions and miscarriages," says Professor Gross, "occasioned by the syphilitic poison is incalculable." But those who die early fare much better, and do less harm to society, than those who prolong their own miserable existence and entail feebleness of mind and body on succeeding generations.

But can nothing be done by us to stay this gigantic evil? It is almost as old as sin, and yet, after all our efforts to suppress it, in this nineteenth century it is more formidable than ever; which proves that no measures yet resorted to have been effectual.

The plan herein proposed assumes the fact of the hereditary transmission of syphilis under the form not only of bodily disease but of moral infirmity, and makes it criminal for a syphilitic to have offspring. No one can question the justice of this requirement. Syphilis is already a ground for divorce, and should also be a legal impediment to marriage. The consequences of such a union to the offspring and the race are so disastrous it is no injustice to brand the act as a crime; if it be a crime it should have a corresponding penalty, and one which shall most effectually prevent the commission of the crime. The penalty which I advocate affects only the criminal, who, from being a criminal, should have no voice on the question. Is it cruel or unjust to wrest from the syphilitic or the leper the right to propogate the species? Has society no counter-rights to urge in behalf of the race? Can one be allowed the exercise of personal liberty which militates with the good of the entire race of man?

But why do I say that this mutilation concerns only the criminal? Because any human being who is willing to propagate disease or crime is in a criminal state of mind. To have syphilis or leprosy is no crime in itself, for the disease may be hereditary, or acquired without blame; but it is criminal to be willing to perpetuate these maladies. Obviously, this is the only effectual way of extinguishing syphilis and leprosy—twin monsters in pathology, of one family and the same origin.

Crime is a prolific cause of disease, and disease, in turn, is often a source of crime; they are mutual allies, each reinforcing and intensifying the other. The offences for which a criminal is punished, not even excepting murder, are less damaging to society than the power to propagate his kind. Criminals, as a class, are so full of disease, that if the extinction of the procreative power, in addition to imprisonment for life, could be made a substitute for capital punishment, a vast amount of syphilis and other forms of disease would die out with the individual; and the penalty would exert a more powerful influence to deter mankind from evil-doing than any motive yet furnished by religion or the law. Then pardoned criminals, let loose on society after a brief imprisonment, would no longer multiply their species and entail their vices.

In the justly celebrated little book of Mr. Dugdale, entitled "The Jukes," or "A Study in Crime, Pauperism, Disease and Heridity," we have, summed up, the social damage inflicted on society by a single criminal family in the State of New York, during a period of seventy-five years:

Total number of persons,	1,200
Number of pauperized adults,	280

Number of criminals and offenders,	140
Number of arrests and trials,	250
Number of habitual thieves,	60
Number of lives sacrificed by murder,	7
Number of common prostitutes,	50

Forty of whom have syphilis. On an average, each woman will contaminate ten men, aggregating 400 men infected, forty of whom spread syphilis through their families; in consequence of which 300 of their children died prematurely, entailing a loss of over a million and a quarter, "without taking into account the entailment of pauperism and crime of the survivors in succeeding generations, and the incurable disease, idiocy and insanity growing out of this debauchery and reaching further than we can calculate."

Our present system of punitive law looks more to the efficient protection of society than to any expectation of reforming the criminal; and this is wise, for habitual criminals, like lepers, are a degenerate stock, morally and physically, which should be permitted to become extinct. Assuming the moral reform of the criminal to be possible, society has a right to protest against the propagation of his diseases, and, if he is not diseased, to protect itself by preventing the perpetuation of a criminal breed of human beings.

In view of the wide-spread dissemination of incurable disease throughout society, and the fact that all sanitary and legislative means hitherto employed to repress syphilis have proved ineffectual, more radical measures would seem to be demanded, in order to avert the deterioration of our race. And the method here recommended will not only efficiently protect society, but conduce to the moral and physical improvement of the criminal, in whom the sexual instincts often constitute the most powerful incentive to crime, as well as the most serious hindrance to reformation. Propagated disease often appears as idiocy in the offspring, and there is no greater obstacle to ameliorating the condition of idiots than the difficulty of controlling their sexual instincts, the indulgence of which serves only to establish and aggravate their imbecility. In such cases we can only hope to promote their physical well-being, but never to make them useful members of society. Bereft, as they often are, of moral responsibility, society should rescue them from the clutches of lust, and ward off the multiplication of idiots and imbeciles. It is a duty which it owes alike to itself and the idiot.

Prostitution in woman is the counterpart of crime in man; and, when it is practised by one who is infected with contagious disease, it is legitimate for the State to take cognizance of it and affix a penalty. In conformity with the suggestions of J. Marion Sims, such cases should come under the jurisdiction of a State Board of Health, like every other contagious disease. The physician should co-operate with the Health Board to quarantine all infected houses as religiously as the plague. The certainty of this being done would insure a greater degree of watchfulness against the disease than is secured by any existing system of legislative supervision; for it is in the interest of the brothel-keeper and the prostitute to guard against the interruption of their business by an officer of the law. Supplementary to existing laws, a woman infected with syphilis, convicted of prostitution should be spayed, which would not only prevent such a one from becoming the mother of harlots and criminals like "Margaret" in Dugdale's "Jukes," but would multiply the precautions against disease by adding a new terror to the consequence of it; and, not to make any invidious distinction on account of sex, every syphilitic or leper, married or single, should be interdicted from sexual cohabitation under no less penalty than the deprivation of the procreative power. Under existing law, it is optional for married syphilitics to live together or separate, but the continuance of the marriage relation under such disabilities should be regarded as a crime; and I believe the time will come when it will be considered an outrage against society, and a heinous sin, for a person tainted with any grave transmissible disease to enter upon the marriage relations.

A CURED CASE OF PERFORATING EMPYEMA.

BY DR. M. MUFFAT, WHEELING, ILL.

T. H., a girl twelve years of age, was seized with an attack of pleuritis of the right side on May 5, 1879, at a time when pneumonia existed endemically. During the first nine days of her sickness the maximum of her temperature was 103 degrees. On the fifteenth and sixteenth days the temperature sank to 100°, and at the same time there began a diminution in the extent of dullness perceptible on percussion.

Hereupon I did not see the child until June 21, her parents having removed her to her home, eight miles distant, against my wish. In the meantime the child had been out of bed, though suffering from hectic fever with evening exacerbations. The appetite was poor, and there existed a good deal of cough accompanied by pain. The spinal column appeared scoleotic, the convexity being towards the healthy side. There had been no expectoration until June 20, when there occurred an intense fit of coughing, as the result of which nearly one-fourth of a litre of pus was expectorated in the course of an hour. During the next twenty-four hours small quantities of pus were continuously coughed up. The following day I found the patient sitting upon a chair. Percussion revealed flatness of the entire right lung, with the exception of the scapular region above the second intercostal space.

Although I had met with cases of spontaneous cure in literature, I still decided upon the radical operation, on account of the large exudation, the hectic fever, and the intense cough. The patient was

placed upon the back, with the right side elevated, and, according to the usual method, an incision two inches in length was made in the fifth intercostal space, proceeding outwards from the mammary line. The pleura was opened and seemed to be eroded. The pus, which flowed at once in a jet, was kept back by the finger of an assistant, and allowed only to ooze gradually in the course of fifteen minutes. The cavity was now washed out with a litre of a luke-warm solution of carbolic acid (one per cent.) On raising the fountain syringe to too great a height, the patient complained of the taste of carbolic acid in the throat. The irrigation removed clots of pus of the size of a hazel-nut, which, if allowed to remain, might have become a fruitful source of phthisis. A drainage tube was introduced, of the length of the intercostal space, fastened and covered with Lister's dressing.

The following day the irrigation was again resorted to in the morning and evening. There were but two or three fits of coughing, neither expectoration nor evening exacerbation. Temperature 102°. June 23; two irrigations, neither cough nor expectoration. Temperature 102° uniformly throughout the day. During the following night the patient again coughed and expectorated pus, as the cause of which I found partial displacement of the tube and clotting of the pus in it. The difficulty was removed. June 25; black discoloration of the urine without any other symptoms of carbolic acid poisoning. As a matter of precaution, however, I gave dilute sulphuric acid, and used for the irrigation a one-half per cent. solution of salt. June 26; urine normal, no fever, no cough, salt irrigation. June 27; urine normal, no fever. The pleura was again washed with a one per cent. solution of carbolic acid. The taste and smell of carbolic acid which had annoyed the patient at a previous time, were not noticed at this time. The suppuration was lessened.

Until July 21 the same treatment was continued, consisting simply in carbolic acid injections morning and evening. Care was taken also to provide proper food. The pus diminished daily in quantity. On July 20, the sinking in of the side of the chest was noticeable. In consequence of it the drainage tube was compressed, and I substituted consequently therefor a silver tube. During the next few days the injected fluid did not enter at all. On searching for pus with a Nélaton's catheter, I could find no traces of it, and hence I removed the canula altogether. The temperature had been normal since June 27, since which period also the scoleosis had begun to disappear.

On the 10th of August the wound was closed, and the adjoining ribs were in close proximity. The side of the chest was sunken in and its circumference less than that of the other side. The percussion yielded a dull sound, but no evidence of pneumothorax.

The perforation of an empyema into the lung requires the radical operation. The chances of success are really proportionate to the time of the perforation. The removal of the pus through an incision terminates the hectic fever and the cough, and prevents the accumulation of purulent matter which might serve as a focus for phthisis. Moreover the operation permits the perforated pulmonary pleura to heal. The carbolic acid taste, of which the patient complained, showed that the substance had entered the lung without any further detriment.

CHEKEN.

BY J. H. EGAN, M.D., PULASKI, TENN.

Cheken, or chekan or chequen, is an evergreen shrub growing in the central provinces of Chili. It belongs either to the genus Eugenia, or Myrtus. The natural order myrtaceæ furnishes many medicinal plants. It is best administered in the form of fluid extract, the dose of which is a teaspoonful every three hours, but it can be exhibited in much larger doses without any disagreeable effects.

In South America it is used for bronchitis and all affections of the respiratory organs. Its action is on mucous membranes, and wherever they are affected cheken is indicated. In gonorrhœa, leucorrhœa, chronic catarrh of the nose, cystitis, excellent results have been obtained from its remedial use.

Dr. Murell, of London, has given it an extended trial in cases of bronchitis, and says: "I have notes of fifteen cases of chronic bronchitis in which I have employed cheken, all the patients, with one exception, being men. The age of the woman was 51; the ages of the men ranged from 36 to 58. They were all bad cases, most of them of many years duration. Many of them had been attended at the hospital for some considerable time, and, almost without exception, they had in former years undergone much medical treatment with comparatively little benefit. Their occupations exposed them to cold and wet and draught, and, in some instances, they had the additional disadvantage of working in a dusty atmosphere. They complained chiefly of paroxysmal cough with thick, yellow expectoration and much shortness of breath on exertion. On physical examination of the chest, emphysema was detected, with or without a little rhonchus at the bases behind. They were in fact ordinary cases of winter cough. The liquid extract of cheken was ordered in two drachm doses in a little water every four hours, the dose being usually increased to half an once at the expiration of a week. The medicine was always taken without difficulty. In all cases the patients obtained some benefit, and, in most instances, the relief was very marked. There was in a few days a decided improvement in the cough, expectoration was from the first easier, and soon diminished in quantity, and finally the dyspnœa was less."

Cheken is a tonic astringent and diuretic; its sole unpleasant after effect is that it confines the bowels.

In gonorrhœa and leucorrhœa it is to be taken internally and used topically by injection. In nasal catarrh it is to be snuffed up the nose or atomized. When applied topically it is well to dilute with water, one part of the fluid extract to six of water.

Dr. Henry Von Dessauer, of Valparaiso, was for many years physician to a large convent school, where many of the inmates suffered from consumption, hemoptysis being of constant occurrence. During the two years and a half that he gave cheken there was not a single death and no fresh cases of hemoptysis, and many of the patients who had been subject to attacks of bleeding, gained flesh and strength in a very marked manner.

I presume that a supply may be obtained from John Wyeth & Brother, Philadelphia, Penn., or some other prominent drug house.

CORRESPONDENCE.

BELLEVUE HOSPITAL NOTES.

New York, Aug. 10, 1880.

Stramonium Poisoning.—Recovery. On Saturday, July 24, an orderly in one of the wards found some stramonium leaves upon the table of a phthisical patient who had been in the habit of smoking them for the relief of attacks of asthma. Supposing them to be tea leaves he took them to his room and made a decoction which he drank, sharing it with a patient and a servant. The orderly took much less than the others. In about an hour he first observed a dryness of the throat, which gave him some discomfort. Soon after, his vision became much impaired, he suffered from extreme dizziness, and his pupils were seen to be greatly dilated. He also felt considerable weakness in all his limbs and was unable to attend to his duties for the remainder of the day, though the effects of the poison seemed to have passed off by evening. The patient began to be affected about the same time as the orderly, but the weakness and dizziness were much greater, and he was obliged to take to his bed. In an hour he became wildly delirious; his pupils were widely dilated, his tongue and throat were dry, and so was his skin. The temperature did not rise and the pulse and respiration were normal. In the afternoon he vomited freely. The delirium continued all night, and he did not fully regain his mind until the next day. The symptoms in the case of the servant were similar, dizziness and weakness of the lower limbs being first noticed, and the delirium continuing longer than in the case of the patient. The urine contained nothing abnormal in any of the cases, and when dropped into the eye of a cat did not produce dilatation of the pupil. In none of the cases was any treatment pursued, as the symptoms did not indicate any danger, and recovery followed in the course of twenty-four hours.

Glioma of the Brain.—The patient was a female, aged 42, and was brought into the hospital in a state of hemiplegia. Her daughter, who accompanied her, gave the following history: Three years ago the patient began to have twitchings in the right side of the face, which occurred irregularly and not oftener than once a month. Previous to that time she had never received any injury of the face or head, had never complained of headache, and had had no trouble with her eyesight or her hearing. About two months ago the convulsive movements of the face became more frequent, and one month ago the right arm and leg began to participate in the twitching, until right unilateral convulsions became well marked and recurred several times daily. At this time the patient continued to use her hands and to walk, and did not complain of any pain. The day before admission she became suddenly unconscious at the time of a convulsion, and fell and bruised herself. The unconsciousness continued an hour, and, on recovering her senses, the patient found that she was completely paralysed upon the right side. Her digestion has been uniformly good, and there had been no vomiting at any time, but since the attack of unconsciousness she had eaten nothing. On admission the patient was conscious and answered questions rationally, though her speech was thick. She was hemiplegic, and had right unilateral convulsions every few minutes, during which she was unconscious. The convulsions were always of the same type; first, the face was drawn to the right, the right eye closed and the lid twitched violently; then the head turned slowly to the right, and the patient gave a long, inspiratory groan, after which respiration was suspended, the right hand was raised to the face, then lowered, and then became violently convulsed; the right leg was rigid but shaking. At the same time the left side participated but slightly, the leg being more affected than the arm. Cyanosis appeared in about one minute, but, as the convulsive action became less intense, respiration returned and the patient gradually recovered consciousness. During the intervals between the attacks there was complete right hemiplegia and conjugate deviation of the eyes to the left. The pupils were regular and normal. Sensation was unaffected. Examination of heart and lungs was negative. There was some edema of the legs and the urine contained albumen and hyaline casts. Temperature, 100°; pulse, 84; respiration, 26. The patient lived three days after admission, the convulsions occurring every twenty minutes during the first day, but becoming less frequent under the use of sod. bromid. in large doses. On the third day she died suddenly in a convulsion. *Autopsy.*—On viewing the brain after its removal, a unilateral swelling was observed on the left side. Section being made longitudinally through the left hemisphere, it was found that the brain substance was very much softened, being almost diffluent. The medullary substance was reddened and the line of the cortical substance was very indistinct. A portion of brain 3 inches long and 1¼ inches deep

was thus softened, involving the inferior portions of the ascending frontal and parietal convolutions, and the posterior part of the third frontal convolution, and extending inward to the lateral ventricle. The contrast between the healthy brain tissue of the posterior lobe and the soft mottled portion affected by the disease was very marked. Microscopical examination of the softened tissue showed it to be a glioma containing many Deiter's cells. Other organs normal.

The histories of cases of tumors of the brain vary in so many points from each other that no one case can be regarded as typical, but in the present case it may be worthy of note that neither headache nor vomiting appeared during the course of the disease, though they are mentioned by many writers as usually of diagnostic importance. The localization of the tumor in the motor region of the left side, corresponded perfectly with the limitation of the convulsions to the right half of the body, while the progressive course of the convulsions indicated accurately the extent of the centers involved, the spasms spreading from the face to the arm and leg as the disease involved successively the ascending frontal and parietal convolutions.

Compound Fractures. The Open Method of Treatment.—There have come into the hospital lately two patients suffering from the same injury, a compound fracture of the leg. In both cases the bone protruded through the integument, and in both the ankle joint was involved. They were sent to the same ward and put in adjoining beds, but different lines of treatment were adopted. The first case, in which the injury was more serious, the wound in the skin being larger and there being more bone protruding, was, after reduction, put into a fracture box with folding sides, and the wound kept open. Perfect drainage was established, and a piece of sheet lint, wet with carbolized oil (1—16), was laid lightly over the wound. The temperature rose in this case to 101° the day after admission, but then fell rapidly to 99¾°, below which point it has remained. The wound is rapidly closing in by granulations. The second case, with less injury, was put up in a plaster splint and the wound dressed with Lister's dressings. For the first two days the history here was similar to that in the first case. The temperature rose to 101½°, but then instead of falling it continued to rise until it reached 103°, the pulse being 108, and respiration 40. The patient then became delirious; the discharge from the wound increased in amount and became purulent. The plaster splint was therefore removed, Lister's dressings abandoned, the leg put in a fracture box, the wound opened freely and dressed as in the former case. This change in treatment produced a corresponding change in the symptoms. The temperature fell in 48 hours to 99°; the pulse to 84. The patient slept quietly after the changes were made, and awoke without delirium. The leg which had become much swollen, returned to its natural size, the discharge became less abundant and inoffensive, and the whole aspect of the case was changed. Both patients are now well along on the road to recovery.

These two cases have been cited simply because they occurred recently. They are by no means the first of their kind. For the last four years similar cases have constantly presented themselves, and the whole tendency is to confirm the opinion that the open method of treatment is the safer for the patient. The advantages of this method over any other may be summed up in a few words. *First.* The moderation of the fever, which comes on with the beginning of suppuration. The cases are rare in which the temperature rises above 102°, and the greater number do not reach 101½°. By this lessening of the fever the effects of the high temperature upon the nervous system and the blood are obviated, and the patient is not only rendered more comfortable but his whole condition is better, and the rate of his recovery made more rapid. *Second.* The prevention of the possibility of the formation of abscesses, by allowing a free exit to any pus which may collect. The importance of thus disposing of purulent matter cannot be overestimated. Any means which will obviate the necessity of dealing with abscesses and sinuses in or around a compound fracture, is sure to be greeted with satisfaction. And this is secured by the open method of treatment. *Third.* Erysipelatous inflammation, so apt to develop in the integument and cellular tissue around closed wounds, is never seen in one treated by the open method. An analysis made of all the cases of amputations and compound fractures occurring in one division of the hospital during the past two years, showed that in those where the wounds were closed, at once there occurred in many either abscesses, erysipelatous inflammation or sloughing, while not one of these three complications developed in any case where the wound was kept open. Case upon case could be cited to substantiate these statements did space permit. It is sufficient here to give results and conclusions derived from the study of many cases, and these all point to the superiority of the open method of treatment. In applying this method in the treatment of stumps after amputation, the following are the details of the dressings: Immediately after the operation the face of the stump is washed with carbolized water, (1—40) then balsam of Peru is applied, and soft oakum covered with vaseline is laid upon the raw surface, and the flaps are drawn gently over this. The limb is then laid on a soft oakum pillow, and covered with a single layer of carbolized gauze. At frequent intervals the irrigation with carbolized water and the dressing with balsam of Peru are repeated, the other dressings being changed at the same time. This treatment is continued until granulations are growing healthily, when the gradual approximation of the flaps is begun by drawing them into place with strips of adhesive plaster, at the same time the oakum, which was in direct contact with

the stump, is omitted in the dressing. Union takes place between the granulations of the stump and those of the flaps very readily, the edges of the flaps being of course the last to unite. These edges may at first show a tendency to inversion, but this disappears after the healing is complete, and if it does not do so the simple paring of the edges and their approximation by adhesive straps fully remedies the inversion. By this method the stumps may be properly moulded and adapted to the after fitting of artificial limbs. This method, which has been pursued by Dr. J. R. Wood, has met in his hands, and in the hands of others the most unqualified success. Of all the many amputations performed by Dr. Wood, at Bellevue, the stumps of which have been treated by this plan, not one has had an abscess develop in it, nor has there occurred either cellulitis or erysipelatous inflammation in any. In these cases, too, the effect upon the temperature range is very marked, it being the exception for the thermometer to register a temperature higher than 101°, and in some cases it has not gone above 99½°. There has been nothing to interfere with the processes of repair, and the patients have gone on uninterruptedly to recovery. Such results have naturally awakened much interest in, and a very favorable opinion of, the open method of treatment, and it is being extensively adopted by the profession here. S.

New York, 41 W. 20th St., July 31, 1880.

Editor of Medical Review, Chicago, Ill.,

Dear Sir:—Having been selected by the Paris Committee (Messrs. Ranvier and Dumontpallier), having charge of the subscription for a monument or memorial to the late Prof. Claude Bernard, to represent them in the United States, I beg leave to be allowed to use your columns for the purpose of appealing to the members of the medical profession, and all others interested, to subscribe to this worthy project.

I need hardly remind your readers of the great debt which every practicing physician owes to the labors of the illustrious physiologist whose memory we are asked to honor in this way.

All inquiries, and subscriptions in the shape of bank checks or postal money orders, should be addressed to me.

Trusting that I shall have the advantage of your active personal support in this matter, I remain,

Yours, very respectfully, E. C. Seguin, M.D.

THE ARMY.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from Aug. 12, 1880, to Sept. 29, 1880.

The following promotions and appointments are published:

Strong, Norton, 1st lieutenant and assistant surgeon. Assigned to temporary duty at Fort Douglas, Utah. S. O. No. 70, Headquarters Dept. of the Platte, July 31, 1880.

BOOKS AND PAMPHLETS.

Amie M. Hale, M.D. The Management of Children in Sickness and in Health. A Book for Mothers. Philadelphia, Presley Blakiston.

A. Trousseau, M.D., and H. Pidoux, M.D. Treatise on Therapeutics. Vol. II. Wood's Library of Standard Medical Authors, Vol. VI., New York, William Wood & Co., 1880.

George P. Rowell & Co., American Newspaper Directory, containing accurate lists of all the newspapers and periodicals published in the United States, Territories, and the Dominion of Canada, together with a description of the towns and cities in which they are published. New York, Geo. P. Rowell & Co., 1880.

Charles H. Lathrop, M.D. The Medical and Surgical Directory of the State of Iowa, for 1880 and 1881.

Medical College of Ohio. Questions Submitted to the Graduating Classes of the Medical College of Ohio, Cincinnati, from 1871–72 to the present time.

Illinois State Board of Health. Official Register of Physicians and Midwives to whom Certificates have been issued by the Illinois State Board of Health, under the act of May 29, 1877, and of Physicians and Midwives who have registered in the County Clerk's offices under the act of May 25, 1877, and who claim to have practiced in Illinois ten years prior to July 1, 1877, but to whom no certificates have been isssed, 1880.

Kentucky State Medical Society. Minutes of the Twenty-fourth and Twenty-fifth Annual Meetings of the State Medical Society of Kentucky, 1879 and 1880.

University of Michigan. The Annual Announcement of the Department of Medicine and Surgery of the University of Michigan for 1880–81. Ann Arbor, 1880.

Columbia Veterinary College. Annual Catalogue and Announcement of the Columbia Veterinary College, and School of Comparative Medicine. New York, 1880.

Transactions of the Medical and Chirurgical Faculty of the State of Maryland, Eighty-Second Annual Session, held at Baltimore, Md., April, 1880.

University of the City of New York. Medical Department, Annual Announcement of Lectures and Catalogue. Session 1880–81.

Eugene C. Gehring, M.D. The Mechanical Treatment of Cystocele and Procidentia Uteri. Reprinted from the American Journal of Obstetrics and Diseases of Women and Children, Vol. xiii No. iii, July, 1880.

Woman's Hospital. Annual Report of the Woman's Hospital of the State of Illinois, reorganized 1879, No. 571 Cottage Grove Avenue, Chicago; list of officers, by-laws, etc.

HEALTH DEPARTMENT, BUREAU OF VITAL STATISTICS.

CONDENSED STATEMENT OF MORTALITY

IN THE CITY OF CHICAGO, FOR THE MONTH OF JULY, 1880.

Oscar C. DeWolf, M. D., Commissioner of Health. M. K. Gleason, M. D., Registrar of Vital Statistics.

POPULATION CENSUS OF 1880, 503,298.

CLASS I.
ZYMOTIC.

ORDER 1—*Miasmatic.*

Cholera—Sporadic	1
Cholera—Infantum	307
Cholera—Morbus	16
Colitis	4
Croup	11
Diarrhœa	53
Dysentery	9
Diphtheria	79
Entero-Colitis	49
Erysipelas	..
Fever—Cerebro Spinal	9
Fever—Congestive	...
Fever—Typho-Malarious	5
Fever—Intermittent	...
Fever—Rheumatic	...
Fever—Remittent	...
Fever—Scarlet	27
Fever—Typhoid	11
Fever—Typhus	1
Measles	7
Pyæmia	4
Septicæmia	3
Small Pox	3
Varicella	...
Whooping Cough	8

ORDER 2—*Enthetic or Inoculated.*

Hydrophobia	...
Syphilis—Tertiary	1
Syphilis—Congenital	2

ORDER 3—*Dietetic.*

Alcoholism—Chronic	6
Alcoholism—Mania a potu	3
Inanition	53
Purpura Hæmorrhagica	...

ORDER 4—*Parasitic.*

Aphthæ	..
Hydatids	...
Tænia	...
Trichinosis	...

CLASS II.
CONSTITUTIONAL.

ORDER 1—*Diathetic.*

Anæmia	4
Bronchocele	...
Cancer	4
Cancer—Breast	2
Cancer—Rectum	...
Cancer—Liver	...
Cancer—Œsophagus	1
Cancer—Stomach	2
Cancer—Uterus	6
Cancer—Eye	1
Cancer—Testicle	...
Cancer—Tongue	...
Marasmus—Senile	5
Marasmus—Infant	21
Rheumatism	4

ORDER 2—*Tubercular.*

Abscess Psoas	1
Gangrene	1
Hydrocephalus	8
Ill Defined	3
Phthisis Pulmonalis	65
Scrofula	2
Tabes Mesenterica	3
Tubercular Bronchitis	...
Tubercular Enteritis	3
Tubercular Laryngitis	...
Tubercular Meningitis	7

CLASS III.
LOCAL.

ORDER 1—*Nervous,*

Atrophy—Brain	...
Apoplexy—Cerebral	11
Angina Pectoris	1
Congestion of Brain	13
Convulsions—Infantile	107
Cerebritis	3
Encephalitis	5
Epilepsy	3
Exhaustion	8
Hemiplegia	1
Inflammation of Brain	...
Laryngismus Stridulus	2
Meningitis	38
Myelitis	1
Paralysis	8
Phrenetis	1
Tetanus	...
Softening of Brain	3
Sunstroke	23
Trismus Nascentium	2
Tumor—Brain	1
Prog. Muscular Atrophy	...

ORDER 2—*Circulatory.*

Aneurism—Pul. Artery	...
Aneurism—Thoracic Artery	...
Dropsy General	3
Dropsy of Heart	3
Embolism Cerebral	1
Embolism	...
Fatty Degeneration of Heart	1
Hypertrophy of Heart	2
Heart, Organic dis	15
Heart, Paralysis of	1
Pericarditis	1
Valvular Disease of Heart	4
Endocarditis	...

ORDER 3—*Respiratory.*

Abscess—Lungs	...
Asphyxia	...
Asthma	...
Bronchitis	7
" Capillary	5
Broncho-pneumonia	1
Emphysema	...
Pleuritis	...
Congestion of Lungs	5
Empyema	1
Oedema Lungs	...
Oedema Glottidis	...
Pneumonia	24
Pleuro-pneumonia	2
Hæmoptysis	1

ORDER 4—*Digestive.*

Abscess—Liver	1
Bowels—Invagination	2
Cirrhosis of Liver	4
Tumor, Spleen	1
Hernia	2
Enteritis	34
Fatty Degeneration of Liver	1
Gastro-Enteritis	24
Gastritis	7
Prolapsus Ani	1
Hepatitis	3
Hypertrophy—Liver	1
Stomatitis	3
Peritonitis	9
Ranula	1
Typhlitis	1
Ulceration of Stomach	1
" Bowels	4
" Throat	1

ORDER 5—*Urinary.*

Hæmorrhage—Kidney	1
Albuminuria	6
Diabetes Mellitus	...
Nephritis	2
Cystitis	...
Uræmia	3
Strictura—Urethræ	1

ORDER 6—*Generative.*

Cellulitis Pelvic	...
Metritis	1
Metro-Peritonitis	1
Rupture—Uterus	...
Uterine Tumor	1
Uterine Hemorrhage	...

ORDER 7—*Locomotory, Osseous.*

Abcess—Frontal Sinus	...
Otitis	...
Necrosis	...
Spina Bifida	...

ORDER 8—*Locomotory, Integumentary.*

Abcess—Cervical	1
Eczema	...
Lupus	...
Sclerema	...
Adenitis	...

CLASS IV.
DEVELOPMENTAL.

ORDER 1—*Children.*

Atelectasis Pulmonum	1
Atresia Ani	1
Congenital Deformity	...
Cyanosis	5
Debility—Infantile	5
Dentition—Difficult	7
Hemorrhage Umbilical	...
Icterus Neonatorum	...
Umbilical Hernia-Cong'nit'l	...

ORDER 2—*Women.*

Miscarriage	...
Abortion	...
Hemorrhage, Post-Partum	...
Leucocythemia	...
Mastitis—Acute	...
Placenta Prævia	...
Phlegmasia Dolens	...
Pregnancy—Albumin'a	...
Pregnancy—Uræmia	...
Pregnancy—Vomiting	...
Puerperal Convulsions	...
Puerperal Mania	...
Puerperal Metritis	...
Puerperal Peritonitis	6
Puerperal Septicæmia	...
Tedious Labor	...

ORDER 3—*Old Age.*

Debility—Senile	17
Gangrene—Senile	...

ORDER 4—*Nutrition.*

Asthenia	1
Atrophy	...

CLASS V—VIOLENCE

ORDER 1—*Accident.*

Crushed	1
Dragged by Horse	...
Drowning	10
Explosion	...
Fracture of Skull	2
Fracture of Spine	...
Gun Shot	3
Suffocation	1
Concussion—Brain	...
Chloroform—in Surg. Op	...
Lightning	...
Hemorrhage	...
Scalding	1
Shock from R R Accident	7
" " Street Car "	...
" " Surg. Operation	1
Wound by fall	5

ORDER 2—*Homicide.*

Homicide by Shooting	...
Infanticide by	...
Manslaughter	3
Murder	2

ORDER 3—*Suicide.*

By Railroad	1
" Viaduct	1
Gun Shot	1
Hanging	...
Poisoning by Laudanum	...
Poisoning by Morphine	1
Poisoning by Strychnia	...
Unknown	2
Deaths	132

PREMATURE BIRTHS, 16. STILL BIRTHS, 54.

AGES.

Under 5 years	900
" 1 year	616
From 1 to 2 years,	183
" 2 to 3 "	44
" 3 to 4 "	33
" 4 to 5 "	24
" 5 to 10 "	69
" 10 to 20 years	39
" 20 to 30 "	70
" 30 to 40 "	69
" 40 to 50 "	67
From 50 to 60 "	51
" 60 to 70 "	29
" 70 to 80 "	20
From 80 to 90 years	11
" 90 to 100 "	1
100 years and upwards	0
Unknown	1
Total	1327

WARDS.

1st Ward	13
2d "	32
3d "	26
4th "	50
5th "	127
6th "	108
7th "	90
8th "	70
9th "	31
10th "	40
11th "	33
12th Ward	40
13th "	34
14th "	229
15th "	72
16th "	75
17th "	66
18th "	32
Public Institutions	96
Deaths by Violence	63
Unknown	0
Total	1327

COMPARATIVE MONTHLY MORTALITY.

Mortality, July, 1878	1067
" July, 1879	1094
" June, 1880	884
" July, 1880	1327

2 636 deaths in 1,000.
Annual rate, per 1,000, 31.64

Chicago Medical Review

PUBLISHED ON THE FIFTH AND TWENTIETH OF THE MONTH.

E. C. DUDLEY, EDITOR.

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CHANDLER & ENGELHARD, Publishers

BUSINESS OFFICE, 60 WABASH AVE. EDITORIAL OFFICE, 70 MONROE ST.

VOL. II. No. 5 CHICAGO, SEPTEMBER 5, 1880. $2.00 A YEAR.

A HIGHER STANDARD OF MEDICAL EDUCATION.—To the practitioner who has realized the defects of his education, and to the people who employ him, this subject has a vitality which is progressive, nor can even the oldest and most influential educators continue to ignore its significance with impunity. The subject is not new. During the first twenty years of the life of the American Medical Association, it was presented annually, and was treated with a neglect not unlike the contempt which the American medical diploma has received in foreign nations. Moreover this neglect was very manifest on the part of representatives of some of those medical schools, on the Atlantic coast, which are now passively at least opposed to the Association of Medical Colleges, in its efforts to advance the standard. These older schools in New York, and in Philadelphia, which stand aloof from the association of colleges, either by withdrawal from membership, or in their failure to place themselves on record as being in harmony with its spirit, occupy a ridiculous position, when they impliedly say that the attempt is premature. The difference between these institutions and the western and southern members of the college association is, that the latter propose to require of their candidates for graduation not merely the "evidence," but three years of genuine study, while the former continue to require two short sessions of lectures, and to dispose of the remainder of the three years by simply requiring "evidence" of study. Just what this "evidence" often represents is too well understood to entitle it to respect. If Jefferson, in Philadelphia, and the College of Physicians and Surgeons, and the University in New York, expect in the long run to gain students by throwing themselves into the market as low grade schools, in opposition to the honest efforts for improvement now being made in the Mississippi valley, let them reflect that they are dependent upon the west for students, and that the west is independent of the east, not only in the matter of students, but also in the abundance and availability of clinical material and capable teachers; and that if, on account of their low grade, the competition of these eastern institutions gives the schools of the west and south much annoyance, they can go to their State legislatures and demand laws which shall discriminate against all schools which do not require preliminary examinations, and which have not extended their curricula to a respectable standard. Whether the American Medical College Association shall continue to exist or not, we are not to hold our breath for the example, or to follow in the wake of institutions which continue to prostitute the honor of the profession, and the interests of the public, to the sordid spirit of

their faculties. In any event let the colleges in the Mississippi valley uncompromisingly hold the position which they have taken, without regard to the splendid reputation and the disgraceful attitude of certain schools on the Atlantic coast; or rather let them soon imitate the plucky example of the St. Paul Medical College, and require for graduation preliminary examinations and a graded course of four years.

On the Pathology and Treatment of Ozœna we find the following noteworthy remarks by Dr. Gottstein, in the Deutsche medicinische Wochenschrift, No. 33, 1880 (being an abstract of a paper in the Bresl. aeztl. Zeitschrift.) The author maintains that ozœna is usually a constant symptom of the atrophic stage of chronic rhinitis. According to four post-mortems reported by E. Fränkel and by the author, there exists a degeneration of the mucous membrane, into connective tissue with partial destruction of the mucous glands and consequent change in the quantity and quality of the secretion, so that it dries into crusts, is not removed in the natural way, and putrifies. He claims further that there are many instances of syphilitic and scrofulous disease of the nose, without fetor, but denies the right of assuming a special syphilitic or scrofulous form of ozœna. The course of a disease of the nose of scrofulous or syphilitic nature is not influenced by the presence or absence of fetor. There exists a form of fetid rhinitis, which, while it may occur in scrofulous, syphilitic or phthisical patients, is by itself non-specific in nature, and so distinct in its physical aspect and anatomical lesions, that it must be considered a disease, sui generis. As regards the treatment, Dr. Gottstein lays much stress upon the use of antiseptic tampons. He uses, moreover, the customary methods of local treatment, and, in addition to these, has the patient wear a salicylated or carbolated tampon of cotton, whereupon the fetor soon ceases. The cotton plug is twisted and introduced into the nose with a twisting motion. It is not necessary to wear it constantly, and good results may be obtained from wearing it alternately in one or the other nostril.

Intermittent Spasm of the Stapedius Muscle has been observed repeatedly in connection with spasm of the facial nerve, of which a small branch, entering the cavity of the tympanum, supplies that muscle. An interesting instance of this occurrence is reported by Gottstein, in the Archiv für Ohrenheilkunde, Vol. XVI, p. 61. A lady had suffered for two years from blepharospasm of both sides, fifteen to twenty attacks occurring every day. The attacks were accompanied by roaring in the ear, but otherwise no auditory disturbance existed. After removal of the blepharo-spasm by appropriate treatmnent, the periodic tinnitus still persisted. The fact that pressure upon the mastoid process stopped the noise, caused the author to suppose that the tinnitus was due to spasm of the stapedius muscle, which could be inhibited by irritation of the sensory nerves over the mastoid process. A similar inhibition could also be obtained by passing an induced current through the two mastoid processes. The continued use of electricity resulted in a cure within twelve days.

Hot Water Injections for Post-Partum Hemorrhage.—This use of hot water, as recommended by Emmet, appears to be more and more appreciated across the Atlantic. Dr. Atthill (Annual Report of the Rotunda Hospital, Dublin; Dublin Journal of Medical Science, December, 1879), says that this treatment has proved eminently satisfactory. It has, indeed, much to recommend it, for not only is it a powerful hemostatic and excitant of uterine contraction, but it is also a general stimulant. If used with ordinary care, it is not only harmless, but beneficial, by thoroughly cleansing the uterus from clots, portions of membrane, etc., which may have been left in its cavity. It will not, in Dr. Atthill's opinion, be found altogether to displace the use either of cold water or of the perchloride of iron, but rather to be applicable to a distinct class of cases, in which the former of those remedies would be unsuitable, and the latter unnecessary. The method of carrying out the practice is exceedingly simple. An ordinary syphon syringe is the only instrument required, though

we now use one with a long vulcanite nozzle, specially constructed for vaginal and intra-uterine injection. This is carried up to the fundus, and, with the usual precautions against injecting air, and securing a free return, we inject water as hot as can be conveniently borne by the hand, i. e., about 112° F., in a full stream into the cavity, continuing this until a good contraction is secured, and the water returns quite clear and colorless. Dr. Atthill gives the following as some of the results of his experience in the use of hot water:

I. In cases of sudden and violent hemorrhage in a strong and plethoric woman, it is better first to use cold.

II. Where, from the prolonged or injudicious use of cold, the patient is found shivering and depressed, the beneficial effect of injecting hot water is rapid and remarkable.

III. In nervous, depressed, and anæmic women, hot water may at once be injected without previously injecting cold.

IV. In cases of abortion, where, from uterine inertia, the ovum, although separated from the uterine wall, is wholly or in part retained, the injection of hot water is generally followed by the most satisfactory results.

V. Where the injection of the perchloride of iron is considered necessary, previous injection of hot water clears the uterus of clots, etc., permitting the fluid to come directly in contact with the bleeding surface, and lessening the danger of septic absorption.

THE LENGTH AND CAPACITY OF THE INTESTINAL TRACT IN CHILDREN, is the theme of some novel and promising researches by Professor Beneke. (Deutsche medicinische Wochenschrift, Nos. 32 and 33, 1880.) He has been busy for years in a field of pathology as yet entirely virgin, the collection of data as to the weight and size of the different organs in health and disease. To some of his results we have referred in the last number. They promise to shed an important light upon the question of constitution and diathesis. In the present article he details his measurements of the intestinal canal. The length of it can only be taken with some allowance, since by its elasticity an error of three to four per cent. is easily made. As a general result he found that in children, until their ninth to twelfth year, the intestinal canal is longer in proportion to the size of the body than in adults. The length of the small intestines bears the proportion of 570:100 to the bodily size in the new born, while in the second year we find its figures 660:100. In the third year it is about 550-600:100, while in the seventh year of age it has fallen to 510:100. After the completion of growth, we find the proportion of the small intestines to the stature to be in the vicinity of 450:100, while, in extreme pathological instances, the limits are represented by the figures 250:100 to 500:100. These results agree with the researches of Forster, who found that children absorbed, of the amount of milk ingested, considerably more than adults.

The author has also measured the capacity of the intestines in the following manner: The gut was spread out in a trough and filled with water under a given pressure, the contents being subsequently measured. The small intestines thus gauged gave figures of 5,000 to 9,000 cubic centimetres per hundred pounds of bodily weight, in children of three to six, or even twelve years of age, while in adults one hundred pounds of bodily weight corresponded to about 3,700 to 4,400 cubic centimetres capacity. All these figures show that the growth during the earlier years is facilitated by a relatively large surface of absorption, while the body, after the completion of its growth, does not require as much intestinal surface for the absorption of its nourishment.

These researches show also why some children are so very apt to throw up their milk. On testing the capacity of the infantile stomach, the author found considerable differences in children of the same age. Thus the capacity of the stomach of the new-born child may vary from 35 to 43 cubic centimetres. Children of fourteen days can hold 153 to 160 cubic centimetres, while in the second year of age the capacity rises to 740. But occasionally perfect monstrosities are found. Thus a twin, dying in its thirty-

sixth hour, showed a stomach holding but seven and one-half cubic centimetres. The author refers hereupon to his researches in disease, as the result of which the following thought suggests itself to him: On looking over his figures, he finds that they group themselves naturally, under three headings, and that to these three classes correspond three modes of death. As the average proportion of the length of the small intestines to each 100 centimetres of the bodily stature, he found 313 centimetres, in persons dying of phthisis. The corresponding proportion in persons not dying from any disturbance of nutrition was 407, while 447 represented the figure in individuals of hypertrophic tendency, as those suffering from obesity, cancers, etc. Without making any rash conclusions as to the relation of cause and effect, the author insists on the significance of these figures and asks for their confirmation on the part of the profession.

Intra-Uterine Medication by Iodized Phenol.—Dr. Robert Battey (British Medical Journal, March 27, 1880), has a paper, which he read before the British Medical Association August, 1879, in which the substance of his former communications on this subject is again presented. The standard solution for intra-uterine medication consists of one part by weight of iodine, dissolved in four parts of liquified carbolic acid. In cases of uterine cancer, it may be used in the proportion of four drachms of the iodine to an ounce of the acid. The iodized phenol may be used diluted with glycerine, or the energy of the application may be regulated by the quantity employed, and the extent to which it is carried into the uterine cavity. Dr. Battey's paper closes as follows:

"The instrument employed in making the application may be one of the many forms of applicators, so-called, or any uterine probe or sound which will easily enter the canal. It is my habit, and I especially prefer, to use a rather slender and elastic hard India-rubber probe, made slightly tapering, and with a blunt, not bulbous, point. The elasticity of this probe allows it to yield rapidly to pressure, to change its course, to follow easily the canal of the cervix, and to enter the uterine cavity proper, and this in spite even of a slight flexion or version of the uterus. From the cotton factory is obtained cotton-wool in the form of an untwisted rope or roll, the fibers of the cotton being perfectly straight, and lying parallel to each other. It is technically known to the cotton-spinners as the 'lap,' and can be purchased, of the best quality, at our factories for eight-pence to ten-pence sterling per pound. It is admirably suited for general gynecological uses.

Respecting the mode of application, the author says: "Having selected six or eight of the elastic probes, I break off from the cotton 'lap' four or five inches, and with my fingers separate or split it into several fasciculi of such size as, when wound upon the probes, will enlarge them to the thickness desired. The end of a probe is now moistened slightly, and the fasciculus of cotton wound spirally upon it. The cotton-armed probe is now dipped into the iodized phenol, any redundancy is allowed to drip away, and the probe is passed into the uterus with a slow, spiral movement as it advances. At first, the probe is introduced but a short distance, and immediately withdrawn, and the case rests here to test the tolerance of the uterus for the remedy. At subsequent stages, the probe may be carried to the fundus, and followed immediately by a second, or even a third or fourth, if well borne. The remainder of the wrapped probes are employed for wiping off the cervix or vaginal wall any of the phenol that may have touched these tissues. The energy of the application is regulated by the size of the wrapping, the depth to which the probe is passed, and the number of medicated probes used. When a very decided impression is to be made, a backward turn is given to the probe in its withdrawal, so as to leave the saturated cotton in the uterus, there to remain twenty-four hours, or even until it is spontaneously expelled. The application is renewed every four to fourteen days, accordng to the energy of the treatment. I have abandoned the use of sponge-tents in connection with the treatment set forth. When dilatation is required, the cotton-wrapped probe is employed, and the cotton left as a soft tent

in the canal. The dilating power of this is notably less than of sponge, but nearly equal to sea-tangle, and, it is believed, entirely safe. The results are the following:

I. A perfect removal of all cervical mucus, which is promptly coagulated, and comes away closely adhering to the cotton. The probes subsequently passed bring the remedy directly in contact with the diseased membrane.

II. Always comparative, and usually entire, freedom from pain. This is a marked feature of the method, and in striking contrast with former experiences. Carbolic acid is a local anesthetic, and so numbs sensibility as to make the energetic application of iodine for the most part entirely devoid of pain.

III. The iodine is so rapidly absorbed by the uterus that the patient remarks its metallic taste in the mouth and throat ordinarily in five or ten minutes after the application.

IV. Softening and more or less dilatation of the cervix and os.

V. There is temporary arrest of leucorrhœa, followed by

VI. Watery discharge, sometimes bloody.

VII. There is exfoliation of the superficial layer of the mucous membrane, which comes away in shreds, sometimes entire, and resembles glove-kid.

VIII. Abrasions of the os promptly heal.

IX. Indurations of the uterus disappear.

X. Leucorrhœa is permanently arrested.

XI. Villosities of the endometrium are removed without resort to the curette.

XII. Subinvolution of the uterus disappears.

XIII. The menses become regular and healthy; menorrhagia and scanty menstruations, as well as dysmenorrhœa, are remedied.

XIV. The appetite and digestion improve, and this, in many instances, without the use of medicines.

XV. So thoroughly is the system impregnated with iodine that alteratives by the stomach are not used.

XVI. The form of the cervix and os is often completely changed; a large, puffy cervix, with patulous, slit-like os, becomes even virginal in type after long use of the remedy.

XVII. Stenosis has not followed the treatment in any case noted.

XVIII. Barrenness of nine to fourteen years' duration has been removed in several instances."

The author remarks that rapid and, at the same time, satisfactory cure of chronic uterine ailments, such as are contemplated in this paper, is not attainable by any method of treatment known to him. It is not proposed that rapid cures can be made by the means herein set forth; on the contrary, long-standing and obstinate cases, such as usually fall into his hands, require many months for satisfactory cure.

Strychnia in the Treatment of Myelitis.—At the meeting of the American Neurological Association, in June last, an interesting discussion took place partaken in by Drs. Jewell, Beard, Hammond, Gray, Seguin and others, on the treatment of myelitis. Dr. Jewell opened by stating that in several cases of advanced myelitis, he had, after the failure of the usual treatment with bromides, ergot, etc., put the patient under the influence of strychnia in increasing doses, with the most favorable results. In one case the amount was increased to almost a toxic dose (one-tenth of a grain), with advantage. With this apparently anomalous treatment he enforced rest, as nearly absolute as it could be made. Several of the other speakers expressed their surprise at this employment of strychnia as being contrary to their own experience, and not agreeing with the physiological therapeutics of the disease. In reply Dr. Jewell said that he did not claim to explain its action in these cases, but he could conceive that it perhaps gave a better tonicity to the spinal blood-vessels in certain cases. He should never give it while there were any febrile symptoms remaining; but he thought that after the disease had progressed to a certain extent, then strychnia might be tried, and if the acute stage had passed, and there was no softening, then the stimulative action of strychnia would do good, if there was softening it could do no harm. He thought it might often be employed earlier in the

disease than is commonly deemed possible, and in stages where most physicians gave ergot and bromides to bring about contraction of the blood-vessels. He had used iodide of potash along with the strychnia in some of his cases, but the improvement seemed to follow the use of the latter drug more than the former.

We have ourselves observed the good effects of strychnia in one of the most striking cases mentioned by Dr. Jewell. It might have well been called a case of active myelitis. The paralysis had advanced steadily and rapidly up the body in a few days, till the patient had no bodily consciousness or power below the diaphragm; a sacral slough had started, and respiration began to be embarrassed. He was given up by his friends, and it was thought by them that his life was limited to hours rather than days. The ergot was abruptly discontinued at this stage, and he was put upon strychnia in rapidly increasing doses. The paralysis was checked in its advance; improvement was noticeable within twenty-four hours, and from this time his recovery, if not as rapid in its progress as had been his disease, was continuous with the use of the remedy. As far as one case could be, this seemed conclusive as to the advantages of strychnia in the treatment of myelitis. It may not be advisable to begin the treatment of every, or, indeed, of any case of myelitis with strychnia, but there are doubtless many that ought not to be given up till it has had a fair trial. The above case, and it seems to be supported by others in Dr. Jewell's practice, makes it appear probable that, even in the last stages of the disease, a vigorous strychnia medication may often be of the utmost value.

Color-Blindness.—Dr. B. Joy Jeffries has examined the color-sense in four hundred and sixty-five members of the American Medical Association and the Massachusetts Medical Society. Twenty-two were found defective; fourteen red-blind, two green-blind, and six incompletely color-blind. This is a little more than the average percentage of four to one hundred that has been found to exist in males by the examination of larger numbers, and yet he states his belief that many, conscious of their defect, stayed away from the test. The natural inference from this, though he does not make it, is that a larger proportion of the medical profession are color-blind than of the whole population. When he says the examination is also a test of mental and physical quickness, are we to infer that medical men are more stupid and slow than other men? This inquiry suggests also a practical point that we have not yet seen mentioned anywhere. A whole class of physicians of the Marine Hospital Service, scattered all over the country, have been designated as examiners of color-blindness. It is evident that one whose own color-sense is defective cannot be a competent examiner of that of others. The results of a general examination of marine hospital surgeons in this respect, if such has been made, ought to be published.

The Vegetation of Mould in the Animal Organism is the subject of an experimental research recently published by Dr. P. Grawitz (Virchow's Archiv, Vol. 18, Heft 2). Although it might seem at first sight to have no bearing upon human pathology ,the results are so novel and so striking that we deem them worthy of reproduction. Evidently but little work has yet been done on this subject, since the author can quote but very few predecessors. He refers in the first place to his previous researches on the fungus of favus, herpes and pityriasis, all of which growths differ from each other in size. Still he found that these fungi derived from no matter which of the skin diseases mentioned above, as well as the mould of milk, oidium lactis, turned out identical, on cultivating them for some time in solutions of gelatine and meat extract. They could be no longer told apart by the size or shape, and, when inoculated into the human skin, they produced alike, feeble herpetic eruptions. He concluded at the time that the parasites of these skin diseases were originally identical, but might change somewhat in property, according to the nature of the cultivating fluid, while the effects produced depended also on

unknown peculiarities of the animal organism into which they were inoculated.

In the year 1870 there appeared some articles by Grohe and his disciple Block, according to which a diffuse fatal mycosis of all organs was produced by the injection of spores of mould into the blood. These results, however, could not be confirmed by any one since. After various fruitless endeavors Grawitz succeeded finally in the following manner: He argued thus: Since mould vegetates usually upon acid sub-strata at a temperature of ten to twenty degrees C., it is not to be expected that the same organism will thrive when introduced into the alkaline animal body at a much higher temperature, but it is possible to accustom the mould in its successive generations to this change in the external conditions. The author used various methods, aiming in this direction, and mentions the following as an instance: If moistened bread is inoculated with mould (penicillium and eurotium), these growths will multiply tolerably well, even at a temperature of thirty-eight to forty degrees C. The second generation is now cultivated in thin pulp of bread suspended in water. This generation, as well as the successive ones, is also kept at the above temperature. For a third cultivating fluid, a faintly acid, feeble solution of peptone is chosen, with the addition of one per cent. of cane sugar. The tendency of this solution to putrefaction is checked by its percentage of sugar, while fermentation may be easily avoided by increased acidity. The better plan, however, is to infect a number of flasks, and run the risk of some accidental failure from these causes. Successive generations may now be accustomed to the same solution, containing less and less acid and finally alkaline in reaction. The growth does not change in size or shape by this altered cultivation, but a change of properties is by itself manifested by this, that while the first generations are apt to be destroyed by accidental putrefaction, their later descendants are much more resistent, and even crowd out the bacteria of putrefaction. The point of interest, however, is this: That while the mould in the native state cannot thrive in the animal body, a cultivation like the above, continued from two to three weeks, enables it to grow in the living being with such rapidity that its effect may be compared to that of the most malignant bacteria.

The injection into the blood was practiced in the following manner: The spores were either taken directly from the cultivating fluid, or had been kept dry for some days, by which their vitality is not impaired. They were suspended in a warm solution of salt (one per cent.), and strained through cloth. Varying with the concentration, one to six centimetres of this fluid were injected into the jugular vein. During the period of incubation, the first twenty-four to forty-eight hours, the animals retain their health. Subsequently they appear prostrate, lose their appetite, and die off slowly without rise of temperature. The urine is highly albuminous. The disease lasts approximately eighty hours in rabbits and about one hundred hours in dogs. The anatomical examination, made within ten hours after the inoculation, is nearly negative. With the aid of the microscope miliary points of hemorrhage can sometimes be found in the lungs, and minute spots of opacity in the liver and kidney, in which the spores begin to germinate. Within twenty-four hours the metastases in the lungs and kidneys become visible to the naked eye, while the most marked changes require three or four days for full development. At this time almost all the organs are infiltrated with the germinating fungus. The spores evidently reach the organs as emboli, and, once lodged there, develop rapidly. In the kidney the epithelium undergoes a granular or fatty degeneration in the vicinity of the emboli, but nowhere are there any microscopic lesions characteristic of inflammation. The liver and kidneys are the organs suffering most. Next in the scale, the intestines may be mentioned, in which superficial necroses occur, resembling typhoid ulcers. The lungs and muscles are also well filled with mould, while the other organs suffer less. On injecting the fluid into the carotid artery, the infiltration with growing fungus occurs copiously in the brain and retina.

On injecting the cultivated mould into the peritoneal cavity the growth spreads through the lymphatic rootlets into the surrounding connective tissue, producing thousands of opaque nodules and bead-like chains resembling tuberculosis. But a small proportion of the spores enters the veins, and, being carried along by the current, produces fungoid emboli in the different organs. The animals rarely die short of ten days, and many even recover completely. The mould emboli become surrounded by a zone of interstitial inflammation, a process reminding one of the encapsulation of trichinæ. The spores die, and ultimately disappear.

The injection of mould into the vitreous body is never followed by their absorption. They develop very vigorously, but soon produce a purulent panophthalmitis, destroying the eye and its contents. Similar results are obtained by subcutaneous injection.

The author now compares his results with the important discovery of Buchner, who recently succeeded in cultivating the ordinary harmless bacillus found in hay, into a species apparently identical in nature and malignity with the splenic fever bacillus. He calls attention, however, to this difference between his cultivated mould fungi and bacteria. While the latter grow and multiply in the body, the development of mould proceeds only to a certain stage. It never results in the formation of new spores. Hence small quantities of bacteria may increase until they finally produce death, while the mould itself is destroyed by the living cells if introduced in insufficient quantity, and kills only by its enormous extension. The second point of difference is this, that bacteria act destructively, not merely by their presence, but also by their chemical activity. The mould, however, acts merely mechanically. It produces neither fermentation or putrefaction; in fact, the only evidence of its tissue change is by its own growth. A last difference between bacteria and penicillium is to be found in the energy displayed by the former in their struggle for existence. Bacteria introduced into a wound, not only develope locally, but soon infect the entire body, while the mould has but poor chances of maintaining its existence when surrounded by living animal cells. An observation indicative of this want of resistance is mentioned by the author. The development of the mould cannot be definitely maintained in warm solutions of albumen. However vigorous it may appear at first, it loses its energy in successive generations, and finally dies altogether.

Tuberculosis in Infants.—Dr. Alois Epstein (Prager Vierteljahreschrift, Band 142), considers nine cases of tuberculosis in infants from ten weeks to ten months of age, including seven fatal cases with necropsies, and concludes that the presence of the disease in infants is in most cases due to the infection with the milk of a tuberculous mother, and not to hereditary predisposition, as is usually supposed. The following brief abstract of this paper may be found in the British Medical Journal, October 18, 1879: Two of the children were the offspring of healthy mothers, but one was suckled by a phthisical wet nurse. Seven were the children of phthisical mothers. In one of the cases there were intestinal ulcers and cheesy infiltration of the mesenteric glands. The author remarks that the tuberculosis of infants and young children differs from that of adults in the great frequency with which the lymphatic glands, and especially the glands of the small intestine, are affected, and also in the comparative rarity of pulmonary disease in children. These facts appear to indicate that the starting points of tuberculosis in children and in adults are different, and that, while in adults and older children it is breathed in, it is sucked in by infants and young children.

Nerve Stretching for the cure of supra-orbital neuralgia is the subject of a communication by Dr. Kocher (Correspondenzblatt für Schweizer Aerzte), the following abstract of which we take from the British Medical Journal, Oct. 18, 1879: A man, thirty-two years of age, had for seventeen years suffered from neuralgia of the right supra-orbital nerve. The attacks, at first rare, afterwards became more frequent, until at last there were only brief intervals of freedom from pain. All the ordinary therapeutic measures had been

tried for years without success. Dr. Kocher laid bare the nerve and three of its branches by an incision along the upper border of the orbit, and stretched it forcibly by means of an aneurism-needle passed under it. The healing of the wound was attended with abundant suppuration; from the moment of the operation the patient was free from pain, and the neighborhood of the supra-orbital nerve was anesthetic. The patient was last seen three months after the operation; he had had no return of the pain; sensation was diminished over a space ten centimetres in extent, but was otherwise perfectly restored. After neurectomy, paroxysms of pain are usually observed during the first days after the operation. As these were absent in the present case, Dr. Kocher concludes that the lesion of the nerve is less when the nerve is stretched than when it is divided. The value of nerve-stretching as a substitute for excision will be greater in neuralgia of the second and third divisions of the fifth nerve, as here a much smaller wound will suffice.

Vaso-Motor Ataxia.—This is the title given by Dr. E. Fabre to a general disease varying in symptoms, which appears to be essentially a disorder of the vaso-motor nervous apparatus. Its most constant symptoms, by which he recognizes it as a morbid species, are general weakness, intellectual and physical, periodical malaise, depressed physiognomy, alternate pallor and flushing of the face, digestive, nutritive and circulatory troubles like those of anæmia or chlorosis, gastric distress, constipation, attacks of rheumatic or neuralgic pains, sensations of alternate cold and heat, the latter accompanied with perspiration, noises in the ears, and weakness of sight and hearing. The disease occurs usually in the spring or autumn, and has some suggestion of latent malaria in its symptoms, more notable since it is in most cases relieved by quinine. Our readers will recognize also that these symptoms are included among those of general neurasthenia, as stated by Dr. Beard, and this affection may be considered as often, perhaps, one of the phases of that protean disorder. Indeed there is reason to believe neurasthenia itself may not infrequently be the sole outcome of malarial infection.

Nitrite of Amyl in Uterine Hemorrhage.—Dr. Elias W. Kerr (British Medical Journal, November 1, 1879) quotes (Allg. Med. Central Zeitung, No. 1, 1879) Dr. Koehler as stating that, for the past seven years, in cases of uterine hemorrhage he has applied warm fomentations to the head to prevent anæmia of the brain, and also of the heart, and that by this means patients may be saved in the most dangerous cases of hemorrhage. Dr. Kerr says: "I can speak with confidence of the success of this treatment, and the rationale of it I take to be the rapid dilatation of the cerebral vessels; and, if so, have we not in nitrite of amyl a more rapidly acting and more powerful agent to produce this result? The idea occurred to me a few nights ago, when attending a case of rather severe post-partum hemorrhage; and, happening to have some of the drug with me, I at once put my theory in practice by administering five minims by means of a Skinner's inhaler, and, I am happy to say, with immediate and most satisfactory results. The hemorrhage ceased at once and permanently, and the patient was restored from a state of collapse. Indeed, in this latter respect, its effect was only comparable to that of the hypodermic injection of ether. I have not been able to find any notice of nitrite of amyl having been heretofore used with the above views, and, of course, a single case is hardly sufficient datum upon which to claim much; but I hope to be able to give the medicine a more extended trial, and shall be glad to publish the results.

Obituary.—Among the recent deaths of medical men we are sorry to note the loss of Professor von Buhl, the pathologist of Munich. He was especially known for his researches on the pathological lesions in phthisis. A second death which the profession deplores is that of Hebra, the Vienna dermatologist. The amount of work he has done in his specialty is too well known to require comment.

M. Broca.—The following summary (British Med. Jour. July 24) of the contributions to science of the late M. Broca, who died July 8th, of angina pectoris, will be interesting: "The localization of the faculty of speech is one of the greatest discoveries of modern science. M. Broilland had shown that aphasia generally coincides with a lesion of the left hemisphere, but M. Broca, studying the anatomical lesion and the functional disturbance more minutely, demonstrated that aphasia is coincident with the destruction of a limited region of the encephalon, the posterior part of the third left frontal convolution. When that region is destroyed speech is gone; so long as it is retained, speech remains. This is the rule, a rule almost without exception; and the exceptions even are far from incontestable. This was, as a matter of fact, one of the most interesting of scientific discoveries; it was, indeed, the first cerebral localization, and is at the present time the most precise and important. Since that time the mechanism of the encephala has been easier of comprehension. It is true tbat this mechanism is still very obscure, and of such a complex nature that it is difficult to conceive when it will be clearly and simply made out; but it is none the less true that, thanks to the precise determination of the aphasia lesion, it is known that there are regions in the brain where certain intellectual functions originate and become elaborated, to manifest themselves outwardly in the form of movements. The knowledge of this important and essential fact is due exclusively to M. Broca. (Bulletine de la Societé Anatomique, 1861). Shortly before this great discovery Broca had founded the Societé d'Anthropologie, which really means that he created the science of anthropology. It is true that he had predecessors. Blumenbach and other philosophers had studied the races of men, but it had not occurred to any of them to group all that concerns the study of man into one science. The French Societé d'Anthropologie has outstripped all similar societies in other countries, and during twenty years, Broca was its life and soul. He inspired and animated it, and gave it not only existence, but life. In the same way that Lavoisier created chemistry, Broca created anthropology; less, perhaps, by his own discoveries and personal labors than by his activity, ardor, and powerful and generalizing mind. The comparative anatomy of man and the primates, prehistoric monuments, the influences of civilization, the data yielded by statistics, have all been examined, studied, and analyzed by him. He inspired more or less directly all the labors of the Societé d'Anthropologie and the Revue Anthropologique; and, if only the work bearing his signature were attributed to him, it would represent but a very small part of his actual labors. The impartial verdict of scientific history will stamp M. Broca as the founder and creator of the science of anthropology. To few is given the rare good fortune of making a fruitful discovery and of creating a new science. Although but fifty-six years of age at the time of his death, Broca had belonged to the Faculty of Medicine thirty-four years. He entered it in 1846 as assistant teacher of anatomy, and by competitive examination obtained the grades of prosector in 1848, and of agrégé in 1853. In consequence of there being no professional vacancy, he waited much longer for a chair, and only obtained one in 1867, at an age, however, when it was at that time rare to don the professional robe. Nominated in the first instance professor of internal pathology, he quitted that chair some years later to teach surgery, and continued in that path until fourteen hours before his death, when he gave his last hospital lecture. From time to time he obtained, beyond the pale of the medical faculty, all the distinctions which could be heaped upon him by the French scientific societies, with the exception of the Institute, which had not as yet conferred its membership upon him. He had recently been elected a senator. His written works are voluminous. He was the winner of the Postal prize in 1850; author of memoirs and papers on the pathology of the cartilage, on rickets, hernia, hernial structure, vertebral arthrites, and the galvano-cautery. He published two well-known works, one on Aneurisms in 1856, and the first volume of a Treatise on Tumors in the beginning of 1866. M. Broca also delivered several admirable

speeches on questions of public health, at the Academy of Medicine; of these, the most remarkable, perhaps, were his discourses on the mortality of nurslings, on the alleged degeneration of the French population, on the movement of population in France, and on organization of the military sanitary service."

Further Development of the Antiseptic System.—Dr. J. Wilkie Burman, of Richmond, England, publishes in the Lancet, November 2, 1879, suggestions on this subject, of which the following is an abstract. It is proposed that the antiseptic system admits of more intricate application, by which the blood may be previously and safely brought into a condition so that it will contain a ready antidote to any septic matter which may be absorbed, and so that the dangers of septicæmia may thus be avoidød. The sulphites, internally administered, it is said, furnish a means of previously bringing the blood into such a repelling and neutralizing condition, so far as the introduction of septic matter from without is concerned, and this condition, it appears, can be maintained for some considerable time without apparent injury to the health. The well-known elaborate researches of Professor Polli, of Milan, (who was the first to introduce this subject to notice), seem to afford conclusive evidence as to the great power of sulphurous acid as an internal antiseptic, when administered in the form of sulphite of soda. He found that animals could, without any apparent ill effect, swallow and absorb large doses of the sulphites; and it was observed, as would naturally be expected under such circumstances, that when these animals were killed, their bodies long resisted the putrefactive process, and that, whilst an animal killed under ordinary circumstances exhibited rapid and marked signs of putrefaction, an animal which had previously absorbed doses of the sulphites betrayed no signs of putrefaction whatever. Again, in a series of experiments in which no less than three hundred dogs formed the basis of the deduction, Professor Polli showed that the sulphites exerted a prophylactic and curative power when septic poisons were introduced into the economy. Then, as regards the human subject, he found that the stomach would tolerate large doses of the sulphites of soda or magnesia, which were tried in the various eruptive fevers, intermittents, typhus, typhoid, pyæmia, puerperal fever, dissection wounds, malarial fevers, etc. The record of cases treated in this way showed an extraordinary amount of success.

According to Ringer, moreover, "so powerful is the antiseptic action of sulphurous acid, when introduced into the system, that sulphites administered by the mouth will, it is said, prevent decomposition and putrefaction of urine in the bladder." Here, then, we surely have an internal antiseptic of great and undoubted value, and which, under the circumstances, would certainly seem to merit a more extended and careful trial, as a prophylactic and curative remedy, than it has yet been recorded as having received in the human subject, in the prevention and rational treatment of septicemia.

Under the powerful influence of proper hygienic conditions, and the free adoption of external antiseptic precautions, cases of septicemia after operation are happily becoming rarer and rarer every day, and it is probable only by further attention to prophylactic measures, so far as these may be possible in the manner above indicated, that we shall be most likely able to cause them to be rarer still, and perhaps even to successfully and entirely prevent their occurrence. At any rate, there are theoretical and practical grounds for believing that such a pre-induced antiseptic condition of the blood as may be brought about by the internal administration of the snlphites would be highly favorable to the prevention of septicemia in ordinary surgical cases, and after labor, and in all other conditions in which septic matters are liable to be formed and absorbed; and the adoption of such further precautions, and the more intimate application of the antiseptic system, would certainly seem to be indicated, if we are to give our patients every possible chance of escaping danger under such circumstances. Further experience of the internal use of the sulphites may yet show that the condition of blood thereby induced, might

have an additional favorable influence on the healing process itself, and experiments might well, in my opinion, be made by those having the necessary facilities to ascertain if such be the case or not. The successful use of benzoate of soda, administered internally as a prophylatic in diphtheria, by Dr. Eigenbrodt, on the occasion of the alarming outbreak of that disease in the Grand Ducal family of Hesse-Darmstadt, demonstrates a still wider scope for the use of prophylactic therapeutic agents, and altogether, in these days, when the subject of preventive medicine is attracting such great attention on account of its paramount importance, the practice of prophylactic therapeutics seems destined to play a not unimportant part in the programme of the general practitioner.

Secondary Degeneration of the Spinal Cord.—The annual lectures of Professor Charcot, at Paris, published in Le Progrès Médical, are among the important occasional contributions to scientific medicine. The British Medical Journal, June 26, 1880, contains an extended editorial notice of these lectures. This résumé has been so carefully prepared, that any attempt to produce a similar article from the original source, is now unnecessary, and we therefore introduce the editorial in full, as follows: Of these lectures are two series, one being given at the École de Médecine by Dr. Charcot, in his capacity of professor of pathological anatomy to the faculty, the other at the Hospice de la Salpêtrière, in his capacity of physician to that institution; and whether he be treating essentially of the anatomical side of the disease, as in the former course, or of the clinical, as in the latter, Professor Charcot generally succeeds in introducing new and striking observations into his teaching, and in rendering his lectures interesting and suggestive, not only for his immediate audience, but also for the profession at large. The plan which M. Charcot adopts for his systematic course at the École de Médecine, is each year to select some one branch of pathology, and to follow it up closely, rather than to extend his range over a wider area at the cost of thoroughness; and last year his choice fell upon the pathological anatomy of the so-called "systematic" lesions of the spinal cord. By the term "systematic," he means those lesions which, though extending throughout the greater part of the length of the cord, confine themselves more or less accurately to one region in its transverse section. Ever since careful microscopical examinations of diseased spinal cords have been made, it has been recognized that there is a strong tendency for morbid conditions to affect it in a curiously partial manner; that a lesion of one of the white columns, or of one horn of grey matter tends to spread, not by involving the neighboring white substance of other columns, or other contiguous regions of grey matter, but by advancing along the column or horn of gray matter first attacked, until perhaps this portion of the cord is more or less affected throughout the whole of its extent. Familiar instances of this fact are to be found in the affection of the posterior columns, seen in cases of locomotor ataxy, and of the anterior horns in infantile paralysis and progressive muscular atrophy.

This regional circumscription of morbid processes in the spinal cord is of great interest, not only from the pathological but from the physiological point of view. As was remarked by Professor Charcot, at the commencement of his course, the study of the normal cord had done comparatively little to aid physiologists in elucidating the problems relating to its functions. The landmarks by which anatomists could divide it into separate regions are too few to be of much practical service; collections of nerve-fibres having widely different functions, are tied together into a compact whole, incapable of anatomical subdivision; and the organ is too small and to sensitive to allow of anything more than rough experiments being made by physiologists. Owing, however, to the tendency of various diseases of the spinal cord to pick out certain functional regions, and to confine themselves mainly to these regions, it has become possible to arrive at much more accurate conclusions regarding the functions of different parts of the cord, than had previously been the case, and there can be no doubt

that the next few years will result in the discovery of many new facts to add to those which have already come to light.

One of the most interesting facts to which Professor Charcot called special attention in his lectures, was the existence of certain bundles of fibres in the antero-lateral columns, which are peculiarly liable to undergo secondary degeneration, in connection with lesions involving the motor regions of the cerebral hemispheres. This secondary degeneration is seen in many cases of old-standing hemiplegia, and it affects two separate tracts situated on opposite sides of the spinal cord. For instance, a patient who has suffered from left hemiplegia, the result of some lesion in the motor tract of the right cerebral hemisphere, will be found to have secondary degeneration of a band of fibres in the right half of the spinal cord, forming part of the antero-lateral column, and lying close to the anterior median fissure; and of another band of fibres in the left half of the cord, also forming part of the antero-lateral column, but situated in its posterior part. These bands are known as the "direct", and the "crossed pyramidal tracts," respectively. They differ from other portions of the white matter of the spinal cord, in being directly connected with the surface of the brain. This connection has been proved in two ways: firstly, by the fact that at the time of birth, when the rest of the spinal cord has arrived at a high degree of development, but the brain is still in a comparatively early stage, these particular bundles in the cord correspond strictly in their degree of development to that seen in the brain; they have not arrived at their proper relative size, and the nerve-fibres of which they are composed have not yet received their sheath of medullary substance. The second proof lies in the onset of the secondary degeneration above described. In both instances, it is possible to trace the course of these fibres with fair accuracy. After passing up the cord to the medulla oblongata, they form the anterior pyramid of that body, the "crossed" band by its decussation giving rise to the well-known decussations of the anterior pyramids; thence they can be traced through the pons Varolii and crus cerebri, to the posterior half of the internal capsule, by which they pass to the motor region of the cortex, in the neighborhood of the fissure of Rolando. They thus constitute a series of commisural fibres, passing directly from the surface of the brain to the spinal cord, without communicating in their passage with any of the large ganglionic masses at the base of the brain. Any lesion of the brain which affects either those portions of the cortex from which they arise, or those portions of the internal capsule, or of any other portion of the cortex, than that near the fissure of Rolando, will cause any change in these tracts.

The central origin and the course of the fibres composing the pyramidal tracts having thus satisfactorily been determined, it still remains to trace them to their peripheral destination. This has proved less easy than the former task. Only two solutions were at all probable: the one being that the fibres pass straight into the anterior roots of the nerves, and the other that they pass into the gray matter, and become directly connected with the cells of the anterior horns, which would thus act as intermediary agents between them and the nerve-roots. Two facts oppose the first hypothesis. In the first place, the anterior roots are at birth highly developed, at which period the pyramidal tracts, as before said, are in an embryonic condition. This does not seem as though the two sets of fibres can be directly continuous. In the second place, in cases where degeneration has become exceedingly marked in the pyramidal tracts, it is very rare to find any degeneration of the anterior roots of the nerves. On the other hand, some recent observations made by Prof. Charcot and others tend to prove the direct connection of the fibres of the pyramidal tract with the large cells of the anterior horns. It is a well-known fact that these cells maintain the nutrition of the muscles; and as these cells almost always remain healthy in cases of hemiplegia, it is very rare to find marked degeneration of the paralyzed muscles in such cases. In certain instances, however, Charcot has seen rapid wasting of the muscles on the paralyzed side supervene in patients suffering from hemi-

plegia, and in whom the presence of secondary descending degeneration had been indicated by rigidity of the paralyzed limbs, the symptom most commonly seen in such cases. In these instances he has invariably found after death that the degeneration involved the anterior horns in addition to the usual pyramidal tracts; and though he has not found it easy in practice to trace degenerated fibres from the pyramidal tracts to the cells of the anterior horn, he feels justified in assuming that the connection exists, and that the cell-degeneration is entirely due to an advance of the retrograde change from the pyramidal fibres. Thus it has been possible to trace a fasciculus of nerve-fibres from its central connection with the cortex of the brain to its peripheral distribution in the muscles.

There is one other point of interest to which Prof. Charcot called attention in connection with the pyramidal tracts. It has long been known that only a portion of the fibres forming the anterior pyramid in the medulla oblongata decussate, though it has generally been found that by far the larger proportion of the fibres do so. Some little time ago, Flechsig, to whose researches much of the information contained in Prof. Charcot's lectures is due, published a series of observations on the anterior medullary pyramids. He ascertained that the decussation is liable to great variations, and he grouped these variations into three chief types. In the first type there is a partial decussation, presenting the same characters on the two sides. In the great majority of cases the band of decussating fibres is very much larger than the band which does not decussate, generally in the proportion of ten or fifteen to one. But the proportion is very variable, and in extreme cases it is entirely reversed, only a very small portion of fibres decussating. In the second type a complete decussation takes place on both sides; whilst in the third type there is partial decussation on one side, and complete decussation on the other. To the wide variability in the amount of decussation seen in the case of the first type we may trace the existence of those strange but well authenticated cases of hemiplegia in which the paralysis takes place on the same side as the lesion of the brain.

The change we have just described is a descending degeneration following a lesion higher in the cranio-spinal axis than the seat of degeneration. Professor Charcot devoted several lectures to the study of ascending degenerations; in other words, to those which occur in the spinal cord or its upward prolongation as the result of lesions situated below the degenerated fasciculi. Space will not allow us to go fully into these changes, but it may be said briefly that two sets of fibres are liable to undergo this degeneration: I. A thin band forming the extreme outer portion of the posterior half of the antero-lateral column, and known as the "direct cerebellar fasciculus." II. That portion of the posterior column which borders the posterian median fissure, and which forms the well-known posterior median column of Goll. There is, in addition, a degeneration of the rest of the posterior column for a short distance above the seat of the original lesion. These degenerations only result when the original lesion occupies the white matter of the cord, a simple lesion of its gray matter, as in infantile paralysis or progressive muscular atrophy, being wholly powerless to produce them. It would appear, however, that ascending degenerations of this kind may occur, not only as the result of lesions of the spinal cord itself, but of disease of the nerves after their exit from the cord. At present the number of clinical observations in proof of this conjecture is very small indeed, but it will probably be found that, when the attention of the profession has been more widely drawn to this series of phenomena, the number of strictly authentic cases of this nature will be largely increased.

We have given but a mere outline of the subject of secondary degenerations of the spinal cord, but we think we have said enough to indicate the great importance that attaches to them in the elucidation of the problem relating to the anatomy and physiology of the cord. Many points will require to be cleared up, but the surest way of arriving at a further knowledge of the functions of its different parts, is to combine full and

accurate chemical observation of cases where these functions are modified, with careful microscopical examination of the cord in such cases after death.

Retention of Feces.—Braithwaite's Retrospect, July, 1880, contains the abstract of a lecture by J. Matthews Duncan, which was taken from the Medical Times and Gazette, Nov. 8, 1879. The scybalum, which is a rounded or oval mass of feces, is one of the most common causes of retention of feces. Its size is that of a hazel-nut, or of a hen's egg, or even larger, and sometimes, from long retention, it becomes partly decolorized and hardened, and, not unfrequently, incrusted with the salts of lime. Such scybala may be found in any part of the great intestines. Sometimes, when located high up, they are mistaken for malignant tumors. In this high position they are less likely to cause obstruction than when low down, especially in the rectum, where the feces are liable to be retained above them. The scybalum in this position may cause retention of the solid feces above it, while the fluid feces may, at the same time, be permitted to pass copiously. A woman having any form of retention of feces may, therefore, be constantly purged, and the most dangerous retention, by this means, may be associated with frequent defecation of nearly solid feces, even in very fair quantity. In the case of retention of feces by a scybalum in the rectum, the accumulation first takes place in the rectum, and produces at last a tumor, which may be felt gradually forming in the left iliac region. This tumor, densely hard, is frequently mistaken for malignant disease. The lecture closes as follows: "I will describe to you the features of a case of this kind from the last example which came under my own observation. I was asked to go to the country, as a mere form, to see a lady who was dying from a malignant disease of the rectum. She was described as being so far advanced in the disease that the malignant tumor could be felt in the left iliac region. Her torments with pain and tenesmus were agonizing. She was never off the chamber-pot, and she was incessantly passing thin, yellow feces. This was simply a case of accumulated feces by a scybalum in the rectum. With my fingers I dug out of her a very large potful of decolorized feces of a disgusting odor, not the ordinary feculent odor, and the tumor disappeared and the woman was cured. Now you can easily understand how natural it was to fall into the mistake that I have described; and a case, which I shall presently read to you, will further impress on you the danger of judging that there is no retention, because a woman is defecating even frequently. This has a very important practical bearing, not only on the diagnosis and treatment generally, but it has a very important practical bearing on the question of colotomy. You are not to suppose that colotomy is naturally excluded from consideration because the feces are passing. The retention of feces may be going on to a dangerous and even fatal amount, although feces are passing, and colotomy may be imperatively demanded."

Intra-Uterine Medication.—Dr. John Tilt, in a paper before the British Medical Association, August, 1879, urges a great conservatism in the intra-uterine treatment of uterine disease, and declares that, in his own experience, he has cured fifty well-marked cases of internal metritis without intra-uterine medication. Although we cannot endorse his uterine pathology, especially on the subject of so-called uterine inflammations, and although his views seem unnecessarily conservative, we yet commend them as furnishing wholesome food for reflection on the part of a class of practitioners whose uterine therapeutics seems to have been based upon the melancholy proposition that the human uterus will endure an immense amount of abuse. Dr. Tilt says that intra-uterine medication should be reserved for very exceptional cases of the following forms of disease:

I. Incoercible blood-loss, resisting milder remedies and menacing life.

II. When internal metritis menaces life or reason, rather by the intensity of its reaction on the system than by the amount of puru-

lent discharge; for insanity may be sometimes fairly attributed to an impairment of brain-tissue, due to long protracted internal metritis.

III. When, independently of ovaritis, internal metritis leads to an aggravated combination of dysmenorrhœa, menorhagia menacing life or reason.

IV. Membranous dysmenorrhœa of exceptional severity.

V. Habitual abortion, independent of syphilis and ovaritis, and seemingly caused by some morbid condition of the lining membrane of the body of the womb.

The paper closes as follows: It is now admitted as an essential preliminary of all intra-uterine medication, that it is indispensable to establish a free passage through the cervix for all fluids injected into the womb, or by it secreted, and I have found the dilatation of the whole cervical canal by laminaria bougies, a day or two before menstruation, to diminish greatly the pain and blood-loss attendant on membranous dysmenorrhœa and the uterine irritation that follows the expulsion of the membrane. With regard to treatment, when internal metritis is leading to death by blood-loss, I recommend the injection of the undiluted tincture of iodine; for, by doing so, I have repeatedly checked flooding, and also uterine exfoliation in membranous dysmenorrhœa. Tincture of iodine commends itself by antiseptic as well as by hæmostatic properties, and by the fact of its having been found trustworthy, for the purpose under consideration, by Drs. Savage, Routh, Fordyce, Barker, and Emmet. I have only heard of its use having been followed by one fatal issue, in Dr. Gaillard Thomas' hands; I am not aware of its having led to any pelvic disease of a serious nature, and a manageable amount of acute metritis is the worst result I have observed in my own practice. Similar immunity from serious results cannot be recorded of an injection of a solution of nitrate of silver in cases of internal metritis. The plan has often led to death, and still more frequently to pelvic peritonitis, from which patients have recovered with difficulty. I am struck by the fact that the liability to serious disease, after using intra-uterine injections, is not proportional to the energy of the fluid injected, for formidable accidents have followed the injection of glycerine and of plain water. For that reason, when internal metritis has necessitated intra-uterine medication, I have sometimes had recourse to the solid nitrate of silver, and I have dropped into the womb about five or six grains of it, by means of Simpson's "porte-caustique," thus returning to what Recamier did fifty years ago. I have seen this followed by acute peritonitis, and, as there are cases on record where death has ensued, I am ready to welcome a better plan of treatment. I trust our meeting at Cork will enable us to settle this best plan of treating such cases, for we are now able to compare notes with many distinguished representatives of the Irish school of gynecology. Our president was the first who had the courage to swab a greatly enlarged uterine cavity with fuming nitric acid, and Dr. Lombe Atthill has recommended this plan in the case under discussion. I ask these gentlemen to tell us, how often they have thus used this seemingly dangerous plan of treatment, and to say by what accidents it has been followed, fatal or otherwise, so as to enable us to judge whether we are justified in following their example.

The Editorial Corps.–Dr. Alexander J. Stone, of St. Paul, President of the Minnesota State Medical Society, and Professor of gynecology, obstetrics and medical jurisprudence in the St. Paul Medical College, takes his place with the present members in the department of midwifery, in the place of Dr. Sawyer, resigned.

A County Court Decision at Sheffield, England, has affirmed that false teeth are not necessaries, and that the dentist who supplies a married lady with them cannot recover the amount of their cost from her husband.

Resuscitation of the Apparently Dead is the title of a lecture recently delivered by Dr. H. R. Sylvester, at the Society of Arts, London, in connection with the Royal Humane Society.

CONTRIBUTIONS.

INTESTINAL OBSTRUCTION.

BY W. L. LINCOLN, M. D., WABASHA, MINN.

*Case I.**—On the 29th day of November, 1868, A. L., aged 21, trapper, walked from his trapping grounds on the Zumbro River, in Greenfield, Minn., to the city of Wabasha, arriving about 7 in the evening. Between 8 and 9 P. M. he ate a dish of oysters, drank a cup of coffee with a friend, and retired to bed between 9 and 10; at 3 A. M. he awoke with agonizing pain in the umbilical region. From that hour until 11 A. M. he was under the treatment of a graduate of Jefferson College, who was at that time advertising himself as a homœopathist, and what the treatment was of course I never knew. When taken charge of by me he was screaming with cramp, as he described it, locating the pain over the whole abdominal region.

Pulse 80; no thirst; no passage of bowels in last twenty-four hours. Hypodermic injection of morphine ½ gr. Signal relief of all pain; calmly recites all the circumstances of the attack, and previous history. Diagnosis, probably intussusception. Administered an injection of seven pints of water, by measure, before he was full to intolerance; no tenderness on pressure over any part of the abdomen; injection soiled with small amount of fecal matter returned; patient remained free from pain, sleeping a part of the time, for six hours, when the former agony returned intensified. Hypodermic injection repeated, which brought instant relief, and the intestinal injection was repeated, seven pints being injected, with former result, except no fecal matter was voided. No change in condition of patient for the ensuing three days, a hypodermic injection being required every four or six hours. On the third day, vomiting ensued, confined to one effort, and considerable stercoraceous matter was ejected: he took milk punch and drank oyster broth a few times; drank little water, and did not complain of thirst.

A singular feature of the case was that the morphine injection relieved him of all pain almost instantaneously, and when the effect was gone the agonizing pain returned as suddenly. He kept the time, and when the time came for the pain to return would give his attendants no peace unless he was assured that I was where I could reach his bedside in three minutes. The injections were continued during the whole of eight days from the first visit, when death came to his relief. There was never any tenderness on pressure at any point in the abdomen, nor was tympanites ever present.

Post mortem, twenty hours after death, assisted by Dr. F. H. Milligan, who had seen the case with me from time to time during the sickness. Body not emaciated. Section of the abdomen revealed first omentum relieved by absorption of all adipose matter. Peritoneum slightly conjested. No exudation of lymph, or other indication of peritonitis. About six inches from the ileocoecal valve the ileum was tied in a complete knot, impervious to all fluid or air. Here was the cause of the sickness and death. I have, in thinking the matter over, often wondered that I was so stupid as not to have preserved the post mortem specimen; but I spoiled it in finding out how it was made, as many a child has done before. The result of the post mortem determined me that should a like case fall into my care I would propose abdominal section as affording the only chance of relief.

Case II.—On the 12th day of October, 1875, I was called ten miles in the country to see the adopted son of Mrs. J. C., aged 13 years. Two days before, he had eaten heartily of chicken stew, at 2:30 P. M. In the night he had been sick at the stomach, with some pain in the region of the umbilicus; some mild, domestic remedy had been given, which gave relief to some extent; subsequently a dose of pills was administered; three hours after taking the pills he vomited freely dark green matter, and had no movement from the physic. Such was the history of the case when I first saw the boy. He described the pain as griping and periodical; he slept without opiates; there was no tenderness on pressure; no tympanitis, nothing to indicate the gravity of the disease. I directed the mother to procure a syringe from a neighbor who I knew had one, and to administer a large enema at once; gave 20 grs. of hyd. chlor. mit., which he retained for half an hour, at which time I left, with directions to inform me the next morning if he was not better. The next day I was called in the country in another direction, and detained during the day and night, and my partner, Dr. F. W. Van Dyke, answered the message from the boy, and also visited him the day following before I returned. Dr. V. diagnosed obstruction, but was inclined to think it functional. He, however, inflated the bowels to the fullest extent, after failing to produce any result with enema. He also administered cathartic medicines in potent doses, with belladonna to tolerance. I saw the patient in the forenoon of

*The two first cases were reported in the transactions of the Minn. State Med. Society, 1876. The third case will be reported in the forthcoming volume of the transactions.

the 15th. Countenance anxious; pulse 150; artificial heat was required to keep extremities warm; had vomited, in the afternoon of the day before, a large quantity of thick, brownish matter, which smelled "as if it had ought to have gone the other way," the mother said; abdomen not tympanitic, but resonant on percussion throughout, except a point just above the ileocæcal valve, where was marked flatness on percussion over a circumscribed place, but tumefaction could not distinctly be made out. There was a slight leaden hue down the whole surface; at this stage it was easy to decide that there was a structural lesion, and that if there ever was a time when surgical aid would have been proper that time had passed. Our patient died the night following, and on the day following his decease Dr. Van Dyke made a post mortem examination, removing the pathological specimen which I will now exhibit. I beg your attention to the subject, that there may be well-attested evidence of the nature of the lesion.

Case III.—On the first day of December 1879, Wm. McF., a young man of 18, called on me for advice and treatment. His prominent symptoms were thirst, pain (not severe), and soreness, located by himself in the right side of the abdomen, midway and in a line drawn from the umbilicus to the superior spinous process. There was slight tumefaction, and considerable tenderness on pressure or palpation. The bowels had been moved slightly the previous day. The history of a fall while loading corn fodder, which, however, did not prevent the continuance of the day's labor, was all that seemed to afford aid to a correct diagnosis. The patient was dismissed with the probability of perityphlitis, and a rational medication advised, viz., tr. iodine as a local application to the tumefaction; quinine in antipyretic doses, and the bowels to be moved by injections. If improvement was not marked, to send messenger without delay. On the morning of the 3d a report was received that he was decidedly mending. At dinner of the same day he ate of roast beef and plum pudding, and the next morning vomited the same undigested, and without subsequent nausea.

On the evening of the 4th there was no noticeable rise in his temperature, no urgent thirst; the tenderness and tumefaction had in a great measure subsided, the cuticle was dead, and in process of exfoliation; the bowels had not moved since the 1st inst. A full enema was administered, which was returned with a small amount of hardened fæces. The following day the patient vomited some dried fruit a few hours after eating, but at this date he had vomited nothing which had passed below the stomach; the ejected contents were of a dark green color, and were reported to have smelled very bad when first vomited; three hours afterward I could not detect any characteristic odor.

At this visit Friday morning, four full days after the patient had ridden in town, six miles, to consult me, I carefully injected six quarts of water at blood heat, which passed in a few moments with nothing but a few shreds of mucus in it. About noon of Friday he vomited with a single effort a large quantity of liquid fæces, and this form of vomiting recurred every five or six hours until Sunday morning; there was no sickness at the stomach before or after the emesis. The symptoms suggested this sequence: After digestion, assimilation and absorption had been fully completed, the residuum returned to the stomach for want of any other outlet, and was regurgitated by a single effort. Saturday evening, there being no doubt in my mind that hope of recovery, other than by surgical interference, was no longer to be entertained, I so informed the friends of the patient; but, as the surroundings were such as were not favorable to the operation in the evening, the patient was not so informed.

Sunday morning (one of those clear, crisp mornings, the pride of Minnesota), a ride of six miles on horseback brought myself, with my partner, Dr. F. W. Van Dyke, to the log cabin, the abode of my patient, whose appearance and condition were not materially different from the evening previous. He had vomited the usual amount five hours previous, and reported as feeling "about the same." He had never complained of pain that could not be controlled with hypodermic injection of ¼ gr. of morphine every six or eight hours. There was no appearance of tumefaction, either local or general, and the temperature had never ranged above 100°. He was now injected to the full capacity of the colon, and it was evident that at or near the ileocæcal valve the obstruction existed. He was informed of the nature of his disease and alternative of surgical interference offered. Without any hesitation he decided upon the operation, and within ten minutes was upon the table.

The house, heated by a large cooking stove, afforded an equable temperature, of about 85°. Moisture was supplied from water on the stove. The surface of the abdomen was sponged with 1 to 20 carbolic acid in water, and section made, the patient being etherized. The ileum was deeply congested for

four or five feet from the knot, which was about eight inches from the ileocæcal valve; the small intestines were empty of fluid contents, but distended with gas; the colon, as a matter of course, was entirely empty. The task of finding and relieving the obstruction was critical and tedious, but, by tracing the convolutions, the united efforts of Dr. V. and myself, every finger of both our hands being called in acquisition, either to hold away a fold or to search for the obstruction, the knot being relieved, we had the satisfaction of seeing and hearing the gurgle of gas from the ileum into the colon. The abdominal cavity was thoroughly sponged out with carbolized water, 1 to 40. Although there was no unusual fullness or tympanites before the operation, we now found the intestines too full of gas to admit of replacing without too much pressure. An aspirating needle was passed into the ileum, and by gentle pressure much of the gas evacuated, so that the sutures closed the section, leaving a flat abdomen.

The wound was covered with cotton wool covered with carbolized vaseline and the body bandaged; pain was quieted by morphine.

Re-action was prompt, and during the next twenty four hours there was no rise in temperature, or other outward symptom. Thirty-six hours after the operation there was a renewal of the vomiting, with the old look and odor, and a rise in the temperature of two degrees. Why the vomiting was a question we could not answer. He had passed flatus repeatedly in the past twelve hours, which had not been a symptom in his case for eight days before the section. We looked upon the flatus as a favorable symptom, but on the vomiting as decidedly unfavorable.

There was no other unfavorable symptom in the case; the temperature was normal; the wound healed kindly; the appetite was "coming," though not urgent. On Thursday night he had a soft fœcal passage, and from that time there was nothing worthy of note until the eighteenth day after the operation, at which time he walked around the premises, and declared himself well.

The lessons which the above cases teach me are these:

I. In the use of force-pump and warm water under your own supervision, determine whether the obstruction is functional or structural.

II. When you diagnose the latter form of obstruction offer your patient the chance of relief, small as it may be, before the stage of exhaustion takes that only chance from him.

*GENERAL CHARACTERS OF THE PAINFUL LOCALIZATIONS IN HEPATIC AND NEPHRITIC COLIC.**

BY J. CORNILLON.

In the exact sciences, absolute precision is possible; in medicine, on the other hand, the premises may be true and the conclusions false. In the localization of a lesion, in the interpretation of a physical symptom, there are often as many divergencies as there are opinions expressed. Our study of the general characters of the painful points in hepatic and nephritic colic, their position and permanency, is no exception to this rule. This is the more so since the migration of biliary and renal calculi sometimes occurs without very well characterized pain. It is true that this peculiarity is specially observed when the foreign bodies are small or reduced to the state of powder, or still more when their shape corresponds perfectly to the calibre of the passage through which they travel, and when they present no roughness capable of irritating the mucous membrane on which they glide. In all other, and indeed this comprises the majority of cases, the pain may be localized.

Although it is possible ordinarily to determine exactly the situation of the painful point, or to indicate its maximum, a little experience sufficing for this kind of determination, we are not always able to say whether this pain is constant or accidental, direct or reflex; that is, we cannot always decide its symptomatological value. In spite of these desiderata we shall try to describe these painful points, taking account of the anomalies, which are frequent both in the hepatic and in the nephritic colics.

PAINFUL POINTS IN HEPATIC COLIC.

I. *Cystic Point.*—This corresponds anatomically to the point where the gall-stone leaves the gall-bladder to enter the cystic conduit, and engage itself in the ductus choledochus. According as the calculus approaches the duodenal termination, the ampulla of Vater, this painful point extends itself and soon merges into the epigastric point.

Almost constantly, however, it is lacking in simple attacks of hepatic colic, with icterus and discharge of biliary gravel, or rather it is so little painful that it passes unnoticed either by the patient or the physician. It is very difficult to determine the sensations to which it gives rise, as they are so variable. Sometimes it is an acute, tearing pain, producing cries and tears; sometimes it is like a heavy body oppressing the right hypochondria. Its intensity is not dependent upon the length

*Translated from Le Progres Medical, August 7, 1880.

of the attack. I have seen it very acute in very short attacks, and slight in those of long duration. In other cases I have seen the expulsion of large biliary calculi cause endurable cystic pain, while minute concretions occasioned horrible suffering. It is a matter of idiosyncracy.

The cystic point is direct; its position at the beginning is pretty well defined. When I have been able to look for it, I have found that it generally corresponded with the interior border of the great lobe of the liver, below and to the right of the xiphoid appendix, about ten centimetres from the end of that bone. By sliding the point of the index finger between the margin of the costal cartilages of the right side and the anterior abdominal wall, we are able to fix it more exactly. In some cases the cystic point is misplaced. It is found in the seventh or eighth intercostal space, on a line dropped from the right nipple parallel to the median line of the body. Finally, in a few cases, it is situated a little outside of this line, four or five centimetres or more.

This painful point, even when the pain is slight, is always accompanied with some suppression of the respiratory movements. This dyspnœa, which may suggest an unlooked for complication on the part of the lung or pleura, or of cardiac trouble, has a natural, physiological explanation. When the diaphragm contracts in inspiration, the liver is slightly depressed, and rises again at the moment of expiration. The movements of ascent and descent of this organ necessarily exaggerate the cystic pain, and the patient instinctively represses the respiratory movements. This is the secret of the dyspnœa.

The cystic point announces the appearance of the hepatic colic sometimes twenty-four hours before the beginning of the other accidents. It is therefore a symptom of certain value. Not always disappearing at the end of the attack, its persistence for several days, or even weeks, indicates either a speedy return of the colic or the existence of a cholecystitis.

This painful point, first noticed by Fleming, is not admited by all authors, and, notably, not by M. Charcot. In my opinion they are wrong.

II. *Epigrastic Point.* This is never lacking, and all the authors who have studied biliary lithiasis have mentioned it. Pemberton and M. Sènac (de Vichy) speak of it in their writings. Purely reflex in its nature, it appears among the first symptoms, and although the stomach is only affected by contra coup, it makes itself most quickly felt and most attracts the attention of the physician. It consists sometimes in a feeling of contraction and dilatation of the stomach, a cramp, sometimes a sensation of a bar extending from the false ribs of the left side to those of the right, thus dividing the stomach into two equal parts. Sometimes this bar follows a very different direction, from the xiphoid appendix to the umbilicus. In some cases it is a sensation of pressure over the epigastric region, in others a burning or tension at the level of the stomach.

These varying pains, apparently so much unlike each other, have, however, one common feature, that is, that their maximum is pretty exactly located upon the median line of the body, one or two fingers'-breadths below the xiphoid appendix. The pain increases as the attack proceeds, so that at the height of the paroxysm it occupies the whole gastric region, and seems to mingle with that of the cystic point. Up to this time pressure on the epigastrium is possible; but at this moment the epigastralgia is such that palpation causes the patients to cry out with pain; they cannot bear the least touch in this region; they throw aside their coverings, and even avoid the contact of their garments. If they are abed they take the position that best relieves their pain, varying according to circumstances. Their movements are spasmodic. If they are off the bed they bend forward, the hand in front of the epigastrium, as if to protect it against external objects. Others, on the contrary, experience relief by compressing the stomach with the fists, or from warm applications to the spot.

At the moment when the cardialgia appears, nausea supervenes, with fetid eructations, and vomiting ordinarily follows the nausea. At first it is not difficult; the patients throw up without suffering much discomfort from the act. Some, even, considering it simply as an indigestion, (this is often deemed to be the case by those suffering for the first time from one of these attacks) thrust their fingers down their throats, or drink warm water to help along the vomiting.

The stomach once empty, there is slight relief, but it is of short duration, for vomiting soon commences again. It does not now occur as before, without pain or fatigue; in fact it is often accompanied with very severe pain, depression, and even syncope. The matters rejected are bilious, mingled with glairy mucus and the debris of the food that remained after the preceding evacuation.

As soon as the attack diminishes in intensity, the violence of the epigastric pain decreases, and frequently ceases altogether with the attack; that is if a localized or general

peritonitis had not been excited. Nevertheless, in numerous cases, in spite of the cessation of the hepatic colic, and without any inflammation whatever being set up, the cardialgia recurs for several days, whenever the patient takes food. This persistence can only be explained by a continuation of the reflex action produced on the stomach.

III. *Dorsal Point.*—This was first noticed by M. Vidal, in a communication to the Society of Biology; he called it the point of correspondence, and located it on the spinous process of the fourth dorsal vertebra.

I have been permitted, on many occasions, to find this painful dorsal point, and generally have located it between the spinous processes of the seventh and tenth dorsal vertebræ, very seldom above or below. It corresponds exactly to the epigastric point in such a manner that if we thrust a needle horizontally backward from the latter at the spinous process, where it made its exit would be found the maximum of the dorsal pain.

It first appears at the commencement of hepatic colic, with the cardialgia and gastric disturbances, and this dorsal pain only ceases at its close. It is rarely lacking, even in the mildest cases, and is sometimes so intense that the patient is obliged to bend the body forward to relieve it. It is spontaneous, as in the cystic and epigastric locations, but it is exaggerated by pressure, and when this is applied to the spinous process an intense boring pain is produced, accompanied by cries and propulsion of the body forward.

These symptoms of this dorsal point should not be confounded with the general curvature which follows hepatic colic. It affects the osseous system and not the muscles. With a little attention one can always avoid this mistake.

IV. *Scapular Point.*—This is far from being as constant as the preceding; in fact, it is met with in scarcely one-fifth of all cases. The honor of its discovery belongs to Budd. The pain is generally felt most severely at the lower angle of the scapula, but sometimes it is localized on the acromion or spinous process of the scapula, so that its locality is not absolutely constant or fixed. This point is exceedingly painful. The pain is exaggerated by pressure on the osseous surfaces, and by movements of the shoulder. It is accompanied sometimes by peculiar symptoms, such as formication in the fingers of the right hand, disturbances of the sensibility in the bones of the elbow, notably in the olecranon. These last phenomena may, nevertheless, manifest themselves in its absence.

The scapular point is an index of a hepatic affection; therefore, when it exists it possesses a great semiological value. It permits us to make a precise diagnosis in all cases when we are in doubt whether we have to do with a biliary or renal lithiasis.

V. *Painful Point in the Left Hypochondrium.*—This is the rarest of all the painful points noticed by us. Denied by M. Sénac, it is admitted by MM. Durand-Fardel and Willemin, who observed it in a certain number of cases. It is found a little below the margin of the left false ribs, about twelve centimetres below and external to the xiphoid appendix.

Does this painful point indicate congestion of the liver or of the spleen? M. Willemin reports a case, with severe suffering localized in the left hypochondrium, in which the middle lobe of the liver and the spleen were congested. I have found this painful point only twice, and in these two cases the spleen was appreciably congested; I will add that it was in its neighborhood that the maximum of pain was felt. For these reasons I question whether the painful point in the left hypochondrium is not rather a splenic than a hepatic point.

In intensity the pain here is in no wise different from that of the cystic point; like it, it causes the patient to cry out, and sends painful irradiations to the epigastrium. When it exists, the attention of the physician should be aroused, since its proximity to the kidneys, and its extension on the left side, renders him liable to make unpleasant mistakes of diagnosis. These are even inevitable unless he fully apprehends the case.

Note.—Sometimes the painful points of the epigastrium, the back and the hypochondrium, are all replaced by a cincture sensation surrounding the base of the thorax. It is then impossible to fix the maximum of pain in any point whatever.

TYPHO-MALARIAL FEVER.

BY J. H. EGAN, M.D., PULASKI, TENN.

The above name was given to a fever of malarial origin which the United States troops contracted in the Chickahominy swamps, while investing Richmond. Surgeon Woodward, United States Army, is the author of the name. This disease has been widely disseminated in the United States, and at present there is an epidemic at Evansville, Indiana. Surgeon Hoff, United States Army, now stationed at Fortress Monroe, Virginia, has written an able brochure on the subject, calling it the fever of the Rocky Mountains. It is identical with the title of this paper.

It has been held by a large number of observers that the disease, as its name implies

is a mixture of two separate diseases, viz., remittent fever and typhoid fever. Upon this assumption the principle of treatment would consist in curing the malarial portion by the administration of quinine, or other anti-periodics, and then the typhoid fever would run its course. There is no difficulty in proving that this view is erroneous. There can be no typhoid fever without the characteristic pathological lesion of that disease, viz., ulceration of the Peyerian glands. Again typhoid fever runs its course of twenty-one days, after which there are marked morning remissions until the twenty-eighth day, by which time the fever has disappeared. No treatment has ever been able to cut short or abort the disease. In typho-malarial fever the lesion of the glands of Peyer has no existence, and it can be cut short in any portion of its course by judicious treatment. My own experience, and the concurrent testimony of hundreds with whom I have conversed, have strengthened me in the belief that this disease is very frequently aborted. The treatment by large doses of quinine is not curative, but prejudicial. Dr. McCormack, of Bowling Green, Kentucky, informs the writer that in his hands quinine is worse than useless.

There can be no doubt in my mind that the disease is of malarial origin. It makes its appearance at a time when remittent fever is expeeted; when people are apt to surfeit themselves with green fruit. I have seen many cases of the jungle fever of the East Indies, and between this and typho-malarial fever there are the strongest points of resemblance. The differences that exist can be readily accounted for by climate. India is much warmer, and the vegetation more rank, with scarcity of pure water at certain seasons of the year.

The most marked characteristic common to both diseases is the fatality attending depressant remedies. In India it is absolutely necessary to maintain the strength by means of stimulants and concentrated food. In the United States depressants are sure to kill.

The remedy which has proved curative in my hands has been Warburg's Tincture made according to the formula of the inventor. I have used the products of all the drug houses in the United States, and find that with a very few exceptions, they compare favorably with that made at the Army Medical School, at Netley. Among the best that I have used were the manufacture of Messrs. Parke, Davis & Co., Detroit, Michigan, and Mr. F. A. Reichardt, New York. One dose, if retained on the stomach will infallibly break the fever. There may thereafter be a slow convalesence, but entire freedom from fever. It is given in divided doses three hours apart; and after the exhibition of the second dose, profuse perspiration will break out. Should the irritability of the stomach bar its ingestion, remedies to relieve the indication may be administered, and the tincture repeated on the following day. Such has been my experience. This year I have had but one opportunity to give it, and it proved curative, although the patient was unable to get out of bed for ten days thereafter. Pulsatilla is a remedy of great value in relieving the nervousness attendant upon all fevers.

A NEW METHOD OF APPLYING PRESSURE IN TRAUMATIC ANEURISM.

BY B. R. PALMER, M.D., SAUK CENTRE, MINN.

The apparatus is so simple that its utility in a wide range of lesions, where pressure upon one point is desired, without constriction of the surrounding tissues, is apparent at first glance, and, so far as I know, it is new. I will illustrate the method by the description of a case which came recently under my care, and in which the result has been all I could wish.

Louis Wimmer, a young man about 25 years of age, a butcher, of large stature, robust and athletic, by accident plunged a long, slender, sharp-pointed butcher's knife into the thigh on the inner side, just above the middle, and directly down upon the femoral artery. When called in to see him, the external bleeding was not very profuse, but a tumor about the region of the wounded artery was being rapidly developed. I immediately applied a compress over and a little above the wound, to control the hemorrhage until I could procure men to apply digital compression. The aneurismal tumor was then from four to five inches in diameter, and projecting very distinctly. While engaged in this, the idea of using the plaster of Paris shell occurred to me, and I immediately put it in practice. I cut a band of coarse, thick Mackinaw flannel, such as I use in applying plaster of Paris splints to fractures, about six inches wide, and long enough to envelop the thigh and lap over about two inches. Through the part of this band opposite the femoral artery, where I wished to apply pressure, I cut an aperture about an inch wide and two inches long. The cloth for the splint thus prepared, I worked in a mixture of plaster of Paris and water, of the consistence of thick cream, to which a few grains of potassium sulphate had been added to hasten the setting of the plaster, and applied it around the thigh so that the aperture came directly opposite that part of

the femoral artery, just below the profunda, where I wished to apply the pressure. Within twenty minutes this band or broad ring had set, and become sufficiently hard to resist a very considerable degree of constriction. Through the aperture I applied a piece of cork, properly shaped, and covered with chamois-skin, pressing it down upon the artery, and letting it project more than an inch outside the band. Then adjusting the cork, as nearly as I could, upon the artery, I applied a roller bandage of stout elastic webbing around the thigh, outside the plaster band, and over the projecting portion of the cork compress, increasing the tension at every turn, until pulsation at the popliteal space could be no longer felt. Instead of elastic roller, undoubtedly a tourniquet, or common roller might be used. This was allowed to remain for about twenty-four hours, with very little inconvenience to the patient. On loosening the apparatus there was no return of pulsation, and coagulation of the contents of the tumor seemed to have taken place. There is very little more in the history of the case. The patient returned to his work much sooner than I advised, but no accident followed, and in a few weeks the tumor had become absorbed, and gave him no further trouble.

In addition to cases such as I have described, the application of this apparatus is of the greatest benefit and convenience in secondary hemorrhage from gun-shot wounds and in amputations, particularly those from frost bites, where secondary hemorrhage so frequently occurs, and where long-continued pressure is necessary. Plaster of Paris fills the indication most perfectly because it can be so accurately adjusted to the limb; but a band, forming a ring, of sole leather, of tin, of very heavy pasteboard, or other resisting material, would do in an emergency, and would probably answer very well. During a long course of practice, of more than thirty years in civil and military service, I can remember occasions where a knowledge of this method would have relieved me of serious embarrassment, and, in all probability, would have saved more than one life.

REDUCTION OF WEIGHT BY MILK.

BY ALEXANDER J. STONE, M.D., ST. PAUL, MINN.

I have had a case of some little interest lately, a notice of which in your journal may prove of interest, if not of practical value, to your readers. Mrs. G., wife of a conductor, residing in St. Paul, visited me with a request for something to reduce her weight, one hundred and ninety-seven pounds being an uncomfortable amount for her to carry. Remembering a "squib" seen in some medical journal two or three years since, I advised her to restrict her diet to milk, of which she might drink ad lib. She followed the advice closely, not even taking a drink of water, and, at the end of five weeks, weighed, in the same clothing, one hundred and seventy-six pounds, a loss of twenty-one pounds.

There has been no uncomfortable sensation or loss of strength, and the patient is feeling better by far than when commencing the diet.

REVIEWS.

THE BRAIN AND ITS DISEASES, VOL. II.—NEURALGIA: ITS NATURE AND CURATIVE TREATMENT. By Thomas Stretch Dowse, M. D. London.

This work affords material for both favorable and unfavorable criticism. It is carelessly written as regards style, it is not particularly scientific in its theories, and it is in some particulars rather extreme in the measures it advises. On the other hand, it is full of good, hard, practical common sense, is conveniently arranged for the reader, and, if not elegantly written, is at least very readable. The readers of the Review may strike the balance in the above summary of its qualities as they appear to our editorial judgment, and we can honestly advise them to form their own opinions in regard to it by a personal acquaintance. We will only add special mention of one or two points that appear to need notice.

The author's definition of neuralgia is, "a diseased condition of the blood or tissues of the body, and a condition which causes a more or less definite and localized painful affection of the nerves." If Dr. Dowse's practical ideas on neuralgia were only equally lucid and definite with this definition we should despair of deriving any good from his book; it certainly is not an encouraging introduction. Happily they are not. The theoretical and pathological ideas, what there are of them, are the weakest portions of the volume. The only other point we need mention is to merely suggest that we do not approve of his frequent alcohol administration, or of some of his therapeutic measures. Half a grain to a grain of morphine is more than is generally advisable for a beginning dose, as is also half a grain of morphia, or a quarter of a grain with one-twentieth of a grain of atropia, for a hypodermic injection. Our readers, however, will hardly need any special caution against such doses. With a few such exceptions, the treatment is

generally very sensible. As a whole, the work is one that most physicians will find profit in perusing.

On Some Diseases of the Skin which are Produced by Derangements of the Nervous System. By Thomas Stretch Dowse, M. D., F. R. C. P., Ed. London, Bailliere, Tindall & Cox, 1880. New York, Putnam & Co.

This is a readable, and in the main, instructive or suggestive little book of fifty-eight pages, intended, we should judge, more for the general reader than the physician. The author has, as he says, simply tried to illustrate, in the most simple and practical manner, "that many diseases of the skin are really more due to some defect or derangement of the nervous system than to an altered condition of the blood," and that hence treatment must be directed accordingly. The subjects specially illustrated are, nettle rash, baldness, abnormal sweating, pruritus, paraesthesias, clubbed finger, etc. One or two statements of the author strike us as rather unguarded, such, for example, as that one that pruritus may be invariably made to quickly and completely disappear by the discontinuance of soaps and irritant applications, and the use of bromides, colchicum, aconite, bicarbonate of soda, warm baths, cleanliness, etc. We wish we could always have this good fortune in our cases, but we certainly do not.

THE ARMY.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from Aug. 13, 1880, to Aug 28, 1880.

The following promotions and appointments are published:

McKee, J. C., major and surgeon. Granted leave of absence for one year, on surgeon's certificate of disability. S. O. 177, A. G.O. Aug. 19, 1880.

White, C. B., major and surgeon. His sick leave of absence further extended three months on surgeon's certificate of disability. S. O. 181, A. G. O. Aug. 25, 1880.

Happersett, J. C. G., major and surgeon. At the expiration of his present leave of absence, to report to C. O. Fort Ringgold, Texas, for duty as post surgeon, S. O. 161, Department of Texas, Aug. 10, 1880.

Taylor, M. K., captain and assistant surgeon. Assigned to duty as post surgeon at Fort Concho, Texas. S. O. 161, C. S. Dept. of Texas.

O'Reilly, R. M., captain and assistant surgeon. His leave of absence, on account of sickness, extended four months, on surgeon's certificate of disability. Relieved from duty in Dept. of the South, and at expiration of his present leave of absence, to report by letter to the surgeon general, S. O. 174, A. G. O. Aug. 16, 1880.

Ainsworth, F. C., captain and assistant surgeon. When relieved to comply with S. O. 89, C. S. A. G. O. in his case. S. O. 100, Dept. of Arizona, Aug. 10, 1880.

Havard, V., captain and assistant surgeon. To proceed to Fort Clark, Texas, and report to the commanding officer 1st Infy. for duty, with his command. S. O. 158, Department of Texas, Aug. 8, 1880.

Skinner, J. O., captain and assistant surgeon. Assigned to duty at Whipple Barracks, A. T., relieving assistant surgeon Ainsworth. S. O. 100, C. S., Dept. of Arizona.

Comegys, E. T., captain and assistant surgeon. Granted leave of absence for four months. S. O. 181, C. S., A. G. O.

Powell, J. L., 1st lieut. and assistant surgeon. Granted leave of absence for twenty days, permission to leave the Dept. and apply for ten days extension, provided he furnish an acceptable substitute, without expense to the United States during his absence. S. O. 167, Dept. of Texas, Aug. 19, 1880.

Carter, W. F., 1st lieut. and assistant surgeon. When relieved by assistant surgeon, Taylor, to report to C. O. Post of San Diego, Texas, for duty as post surgeon. S. O. 161, C. S., Department of Texas.

Ebert, R. G., 1st lieut. and assistant surgeon. Assigned to duty at Fort Walla Walla, W. T. S. O. 140, Department of the Columbia, Aug. 16, 1880.

BOOKS AND PAMPHLETS.

Nashville Medical College. Sixth Annual Announcement of the Medical Department, University of Tennessee, 1880–81.

Missouri Medical College. Fortieth Annual Announcement of the Missouri Medical College, formerly known as "McDowell College" and Hospital, Twenty-third street and Christy avenue, St. Louis, Mo., 1880.

G. P. Putnam's Sons. Temperature, Pulse and Respiration Tables.

J. Marion Sims, M.D., LL. D. Pregnancy-vomiting. Reprinted from the Archives of Medicine, June, 1880.

Arkansas Medical Society. Transactions of the State Medical Society of Arkansas at its Fifth Annual Session, held at Little Rock, May 5 and 6, 1880.

Chicago Medical Review

PUBLISHED ON THE FIFTH AND TWENTIETH OF THE MONTH.

E. C. DUDLEY, EDITOR.

EDITORIAL CORPS:

WM. E. QUINE,
Theory and Practice of Medicine and Therapeutics.

E. C. SPITZKA,
General and Comparative Pathology.

CHRISTIAN FENGER,
Surgery.

ALEXANDER J STONE,
Midwifery.

H. M. BANNISTER,
Diseases of the Nervous System and of the Mind.

HENRY GRADLE,
Physiology, and Diseases of the Eye, Ear and Throat.

HARVEY W. WILEY,
Chemistry, Toxicology and Public Hygiene.

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Gynecology.

CHANDLER & ENGELHARD, Publishers

BUSINESS OFFICE, 60 WABASH AVE. EDITORIAL OFFICE, 70 MONROE ST.

VOL. II. NO. 6 CHICAGO, SEPTEMBER 20, 1880. $2.00 A YEAR.

QUALITATIVE REFORM IN MEDICAL EDUCATION.—On every side we hear the cry of reform. From the metropolitan medical periodical down to the humblest Choctaw or Hot Springs representative of editorial venture, nearly every number of our exchanges is sure to contain some reference to this question. While we herald the outburst of feeling which documents itself in the movement thus expressed, as one which cannot fail ultimately to raise the standard of the profession, and carry with it other beneficial results, we would yet venture to criticise the methods which are selected by those apparently most solicitous for the purification of our graduating mills. Thus far it appears as if the whole objection to the present system were based on quantitive rather than on qualitative deficiencies. The college courses are too short or the lectures too long, the buildings too small or the fees too large, the faculty too few or the colleges too many.

Such are the chief causes for dissatisfaction expressed in the majority of writings, addresses and colloquies on this subject, and repeated ad nauseam, as they have been, it is to be presumed that the average college reformer would consider the question as satisfactorily disposed of if the length of the courses, the number of the faculty and the amount of the fees were to be regulated. Nothing could be more grossly erroneous. If on such, after all but intrinsically formal considerations, depended the standing of a college, any recently founded school which pledges itself to a four years' course, and thus piles a Pelion on the Ossa of the ordinary "three years' extension" call, would stand on a far higher plane than the well established schools of our large cities, where a Davis, Allen, Leidy, Bigelow, DaCosta, Alonzo Clarke, Otis, Sands, and others of like fame are teachers. It seems to us that whatever of a gradual reform, and such a one alone is possible, is to be effected, must be based as much upon the individuality of the instructor as upon the number of lectures he is to give, the fee he should charge for them, and the students he is to deliver them before. Those occupying the position of professors in medical schools, as a rule busy general practitioners, are ordinarily so much monopolized by the duties of every-day practical life, that they are naturally tempted to ease their own shoulders as much as possible in the other direction, and to get along in lecturing with as little trouble and effort as possible.

It is at this point that the pressure of public opinion should be brought to bear, and the Review accordingly proposes to call attention to some of the features of this subject, a proper attention to which is the only key to any educational reform which aspires to be something beyond a shallow pretext. No

one claims for a moment that those chairs which have to deal with the practically applied issues of medicine at the bedside, are not, or cannot, be filled as well in American as in British or Continental institutions. The chief difficulties we have to contend with lie in the securing of competent instructors in the so-called theoretical branches of anatomy, physiology, chemistry and pathology. It may not be ill-timed, therefore, to depict the requirements which should be made of anyone aspiring to fill these chairs, and we propose in successive numbers of the Review to do so.

The Ideal Anatomical Teacher.—As anatomy is first in importance and most fundamental in its relation to all the other strictly medical sciences, we shall now endeavor to depict the ideal anatomical teacher. An average college course on anatomy, as delivered at certainly nineteen out of twenty American Colleges, consists of, say sixty lectures, which are mere rehearsals of one of the most inferior text-books, viz.: Gray's Anatomy, and which lead the student from one dry and wearisome detail to another, and usually wind up at the middle of the subject, say the femoral canal, leaving the intricacies of the nervous system, the surgical anatomy of the great vessels, and visceral histology and topography almost entirely untouched. No judicious selection of subjects is ever made; insignificant arterial twigs, whose course is not even constant, and whose presence is of no importance to the surgeon, and minute and equally variable nerve twigs whose relations it is neither of a practical nor a theoretical value to know, are described, or, it would be better to say, ground off, in an exhaustive manner, to be forgotten by the student when his professor leaves the room, and by the professor himself if he should chance to mislay his notes. On the other hand, those organs of the body which are of special value to every practitioner, the central nervous system, the eye, internal and middle ear, eustachian tube, pharynx, larynx, heart, uterus and adnexæ, perineum, bladder and urethra, are glossed over neglectfully and superficially. To the competent and reflecting observer a visit to the average dissecting room is replete with countless incidents that may suggest pity for the student or sarcasm for the teacher, according to that visitor's inclinations. He will wonder, for example, why every student, from the beginner to him who is about to graduate, is compelled to devote an hour to taking off the superficial fascia on the thigh, a week more to the separation and cleansing of the muscles, and then compelled to leave the most instructive and practical portion, the knee and hip-joint, in disgust, at the state of the subject, instead of being permitted to examine their clear relations in the fresh state. Is it not provocative of irony to see a demonstrator of anatomy directing a student to expose the attrahens aurem, when he himself has never seen the vastly more important tympanic cavity properly exposed in his life? How many practitioners in medicine can recollect having had the heart, the great vessels, the bladder, rectum, uterus, vagina, ovaries and urethra, demonstrated to them in an intelligible manner at any time while they were students? Have they not been compelled to dissect the abdominal and thoracic muscles and fascias until the splanchnic contents were in the green stage of putrifaction?

Of such subtleties as the minute anatomy of the organs, or even a proper surface anatomy of the great nerve centres, we will not speak. He must be relatively an anatomical Crœsus who does not teach his students to recollect the parts at the base of the brain by rote, so that the pupils graduate under the impression that the frontal lobe, pituitary body, and pons Varolii, are equally important and corrolated structures. We have seen and heard a demonstrator, considered a marvel in his day, some five years ago, seizing the cerebral hemispheres in his two hands, tear them apart, and as the pultaceous white substance was dragged apart in syrupy strands, inform his class that this "white fibrous tissue" was the corpus callosum. The objects which the teacher of human anatomy should keep in view are manifold. In the first place not every subject he teaches is fit for the consideration of students of every grade. The student of the first years

has different needs from him of the last term; what is desirable for the former is often but a nauseating repetition for the latter, and what the latter requires would confuse and weary the former. A systematic course on anatomy should commence ab ovo and trace the great and fundamental homologies of the visceral systems and the principal tissues as they are gradually evolved in the embryo. One has but to look at any text-book on special organs, such as the eye, ear, brain, heart, and those of the uro-genital system, to discover that the writers find it almost impossible to deal with the anatomy of these organs without first explaining the simpler diagram, as it might be called, which their embryonic anatomy constitutes. We have witnessed the experiment of teaching two students of approximately the same intellectual calibre the anatomy of the vertebral column. With one the instructor began at its embryological development, and, having rendered the typical vertebra a clear conception, proceeded to develope the aberrant ones by showing how such a feature underwent a retrogression, and such a one an exaggeration. This occupied about one hour, and in that hour was included a brief explanation of the basi-cranial homologies. The other was instructed according to the stock method. By great perseverance he had managed to reach the axis in the same period, and the study of the entire subject occupied fully three hours. While the former student was clear and ready on all important points, and had learned as it were in play, and acquired a broad conception of structural homologies, the other could keep what he had so laboriously acquired only by repeatedly reviewing, in other words cramming, the subject.

The intelligent study of embryonic development leads naturally and gradually to a consideration of the great systems, the skeleton, the large muscular masses, the viscera, the plan of the circulatory system of the nervous axis, and the organs of special sense. This anatomy, properly termed systemic, is that which the student most requires as a necessary preliminary to entering on pathological and physiological studies. In fact this is essentially physiological anatomy. The anatomical teacher can render this as fascinating, as it is a useful, study; thousands of facts drawn from the mine of comparative anatomy may be used to diversify the monotony of mere descriptive lecturing, and a mass of important details be made the property of the student almost without effort. The physiology of the joint mechanisms, of coarse muscular action, of the circulation and respiration, is predominatingly based on structure and structural relations. In the course of this study, the minute anatomy of each organ should be taught with the surface anatomy, for associated facts are more readily acquired, and more permanently stored in the memory, than isolated ones. The great office of the teacher is not to override a developing mind, booted and spurred with a host of names, and force it into the Procrustean bed of a mechanical and thought-killing cram-quizz, but to cultivate the faculty of comparison and association. In other words he should teach his subject logically rather than on the plan that the litanies are taught in sunday-schools. There is more philosophy in anatomy than we fear the majority of medical instructors have any adequate conception of. Having thus sketched out in bold and clear traces the fundamental plan of the human body, and demonstrated, as it were, the unity of his subject, the duties of the anatomist cease, as far as the first year's pupils are concerned.

For the second year students he proceeds to fill in the details; every organ and every important region should constitute the subject of a short and separate course. The eye and the orbit, the ear and the naso-pharyngeal passages, the larynx, the thoracic viscera, the abdominal topography, the nerve centres and the surgical regions, each merit an individual study. Here the purely anatomical teacher may leave his class. What further is required by the student in the line of surgical anatomy only a practical surgeon can and should teach. It is as impossible for an anatomist, complying with all the requirements stated here, to be a perfect surgeon, as for the latter to be a histologist and embryologist, keeping even with the advances of science. The anatomist can, however, greatly

ease and prepare the way for the task of his surgical successor by demonstrating the anatomy of the living subject, and that of frozen sections on the cadaver. The histological laboratory and the dissecting-room should constitute subdivisions of one single institute, under the government of the professor of anatomy. The latter should be a man who is never at a loss whether he be called on to macerate an elephant's skeleton, to preserve a mouse's brain, to grind a tooth, to inject a gland, or to cut and stain a tissue section. In the human body there should not be a nook that he had not traversed, not a fact in his memory that he could not correlate, and he should have a broad and profound conception of the general truths of those sister and branch studies, comparative anatomy, embryology and histology.

THE MORTALITY REPORT.—The monthly mortality report for the city of Chicago, which we reproduce in this issue, contains certain new features that add considerably to its interest. The registrar has added two tables, giving the cases of the principal zymotic and lung diseases in each ward, and the deaths under five years of age, and the total mortality in each, together with its total population, and density of population per acre. Thus the reader may see at a glance the sanitary condition of each ward, as shown by its mortality amongst infants and adults. The range is rather startling; for example we have in the fourteenth ward, with a density of less than nineteen persons to the acre, a monthly mortality rate of 2.90 per 1,000, which corresponds to an annual rate of nearly 35 per 1,000, while in the ninth ward, with a density of over sixty to the acre, a monthly rate of only 0.97, or at the rate of less than 12 per 1,000 for the year. Over three-quarters of this mortality in the fourteenth ward is among children under five years of age. This ward is the stronghold of communism and socialism in the city; it is pre-eminently the home of the proletariat; its birth rate is, to all appearances, correspondingly high with its infant mortality. The sixth and eighth wards are next to the fourteenth in their infant and adult mortality, as might be anticipated by any one who is acquainted with these neighborhoods. We observe that the corrections recently suggested by us to the registrar have mostly been attended to. The report is not yet faultless in its classifications, but it is a great improvement upon the former ones.

STRICTURE OF THE URETHRA.—Dr. Ambrose L. Ranney (New York Medical Journal, September, 1880), introduces the following rules as proper guides in the treatment of uncomplicated urethral stricture: I. Seldom resort to the knife, except the stricture be of traumatic origin or resilient, or situated at the meatus. II. Never perform internal urethrotomy if the situation of the stricture be more than four inches from the meatus. Three inches would probably be a safer rule. III. In strictures of the deep urethra, in case dilatation is impossible, divulsion and perineal section, are the two best methods of treatment. IV. Dilatation, if carefully and judiciously used, will be found to be practicable in the majority of cases, and in many cases will entirely relieve all symptoms. V. Internal urethrotomy, if performed for the relief of "strictures of large calibre," should be resorted to only when the symptoms presented by the patient have been treated by other methods without relief, and then only in the anterior four inches of the urethral canal.

TO PASS THE ESOPHAGEAL TUBE sometimes is found very difficult, and dangerous delay may often be occasioned when the stomach-pump is required in cases of poisoning. In such cases the attempt is generally made to pass the tube with the patient in the dorsal position, and its passage is frequently obstructed at some point in the esophagus. This annoying difficulty usually may be overcome by holding the patient in the upright position during the passage of the tube. We do not know the author of this procedure, but remember having seen it successfully carried out in Bellevue Hospital, when all attempts to pass the tube, with the patient in the dorsal position, had failed.

ORGANIC MATTER IN RUNNING WATER.—On one point chemists agree, viz.: that organic matter tends to be eliminated from running water. But when it comes to the question of how long the process lasts, there is a wide difference of opinion. At the late meeting of the Association for the Advancement of Science, a paper was read showing that the organic matter of a peaty water was rapidly oxidized in a mountain stream. Here, however, the conditions were unusually favorable. The rapid fall and the consequent agitation of the water tended to bring the organic particles into intimate and frequent contact with the air. It is evident that in a slowly moving stream the oxidation would take place much more slowly.

Tidy, in his paper on "River Water," (English Chem. Soc. Journal), says that organic matter is rapidly oxidized in running water. He says that the waters of the Shannon lose more than thirty-eight per cent. of their organic matter during a flow of one mile. He also instances a stream in the north of England which loses fifty per cent. of its organic matter in a flow of four miles. Dr. Frankland, in a recent communication to the Chemical Society, the joint work of himself and Miss Lucy Halcrow, denies that water strongly impregnated with peaty and other organic substances, is so rapidly purified. A sample of peaty water kept for seventy days in contact with air, and freely exposed to the sun light, but without shaking, lost only six per cent. of its organic elements. When the water was violently shaken the results were but little more satisfactory. The conclusion arrived at by the investigators is that peaty matter is oxidized with extreme slowness, and in no case in such amounts as the report of Tidy seemed to show. In the discussion which followed, particular attention was given to the question, "Can running water be safely used for dietetic purposes a few hours or days after it has been mixed with sewage?" In discussing this question Dr. Frankland took strong grounds against the theory of oxidation. He said no river in the United Kingdom was long enough to effect the complete destruction of sewage filtration. On the other hand Dr. Tidy asserted that the experimental proof was good of the rapid oxidation of organic matter.

Fortunately in this country our rivers are longer than in England, and hence there is a much better chance to secure the destruction of organic matter. It is also not often necessary that one town should draw its water supply from a stream which has but lately received the sewage of another. But the above facts should at least make us more careful about the sources of water supply in large cities. We may safely adopt a mean of the two extremes stated above, and, while we admit the probability of sewage contamination, let us not deny the possibility of sewage elimination by atmospheric means. It is possible that the citizens of Peoria may not be altogether wrong when they say that the Illinois river at that point is still foul with the filth of Chicago; but the Peorians should remember that it is much more likely to be foul from the sewage of Peoria.

ESTIMATION OF ORGANIC MATTER IN WATER.—If we seek for the causes which make such eminent chemists as Tidy and Frankland disagree, we may find many things not at all creditable to sanitary science. The chief of these causes lies in the different methods of estimating the organic matter in water. Frankland evaporates the water to dryness, and estimates the organic matter by combustion. Wonklyn uses what is known as the "albuminoid ammonia" process. This is not the place to enter into a discussion of the merits of these two processes. Wonklyn's process is much easier, and, from all the facts accessible, seems to be quite as reliable as the dry combustion method. There is one important fact that commends it, i. e., that it has come into almost universal use. Only the hard-shell or orthodox chemists continue to adhere to the comforting doctrine of combustion. Abstractly, the "combustion" process is the more satisfactory, but concretely the "albuminoid" process is far more practical. Long and bitter has been the contest between the Franklandians and the Wonklynites. As it stands now the former holds the pure theorists and the latter the workers. For sanitary purposes the albuminoid ammonia

process appears to afford all that can reasonably be desired, at least until some more satisfactory method can be devised. And in the above is found the secret of why such great scientists so radically differ.

Biological Turbidity.—Prof. Huxley was present at the meeting of the Chemical Society mentioned above. He, of course, took no part in the discussion of the chemical points raised, but addressed his remarks to what he was pleased to call the "biological turbidity" of what Dr. Tidy had said. It appeared to him that diseases caused by what is not wisely called "germs," such as splenic fever, pig typhoid, etc., are invariably produced by bodies of the nature of bacteria. From Prof. Huxley's remarks we gather some interesting statements. These bacteria can be cultivated through twenty or thirty generations, and still, when given to the pig or ox, would invariably give rise to the characteristic disease. Bacteria are just as much plants as mushrooms or cabbages, and the conditions under which they live and flourish are known. The total amount of organic matter in bacteria is so minute that where one hundred thousand of them are contained in a cubic inch chemical tests would fail to mark the water as impure. These remarks of Huxley, and these discordant results of chemists, only go to confirm what the thoughtful sanitarian has long suspected, i. e., that it is not the amount of organic matter but the kind that makes water dangerous. Hence a mere chemical examination of a water, valuable as we admit it to be, cannot be relied upon as settling its dietetic status. We thus see the immense importance of keeping water which is to be used for dietetic purposes perfectly free from all contamination, however slight, with any refuse of the sick room. Water may be very hard and very full of organic matter, and yet be harmless; it may be very soft and very free from organic matter and yet be deadly.

Special Department of Philology.—An acquaintance with the terminology of his subject is an essential to any writer, but there are all degrees of this proficiency. A recent article in the New Orleans Medical and Surgical Journal, entitled "Chartered Brothels," comes as near perfection in the copiousness of its vocabulary of its special subject as anything that we have recently seen. We did not give it an attentive perusal, but in our rapid glance over its pages we met with no less than sixteen different designations for the members of that profession, which the author deemed necessary, or, at least, inevitable to civilization, and which, therefore, in his opinion, should receive a sort of legal recognition, so far as is implied in its control. We are very certain that this was not exhaustive, for we noticed a similar richness in adjectives as well as substantives; indeed, but for the very obvious context, and the peculiar family characteristics of the unknown words, we might have been at a loss for their definition. It must be confessed, too, that the author's favorites in this line are those plain old english terms that through the, perhaps, emasculated refinement in writing of our times, are seldom seen in print. The author writes vigorously, and apparently "con amore." The article is probably a good argument on his side of the question, but we fear that there may be some people who will object to his manner, if not to his matter.

Puerperal Eclampsia.—Dr. C. C. P. Clark, whose writings are always worthy of careful perusal, even when the ideas advanced are the most startling, has given us a valuable paper in the American Journal of Obstetrics, July, 1880, on "The Treatment of Puerperal Eclampsia by Morphine," in which he claims close affinity between the disease in question and epilepsy, and urges that both can be cured by the proper use of morphine. After deprecating the use of the lancet and purging, and with one sweep pushing aside everything which has been suggested in the therapeusis of the disease, with the exception of bromide of potassium, to which he attributes "some advantage," and everything which has been suggested as to its pathology, he points to a "weakened, overburdened and distracted state of the powers of organic life, threatening that dislocation of its rythmic movement, in which the convulsion itself essentially consists," and

to a "perverted nerve function," as the sole pathological condition, adding that "a woman who bears her pregnancy lightly never has convulsions," and summing up as follows: I. "That I have never seen opium, properly used, fail to ward off eclampsia when it seemed to be threatened," and advises a grain of opium thrice daily from the first signal of danger to the close of labor. II. "That I have many times seen it obviously and at once put a stop to the paroxysms, after they had commenced," and urges one and one-half grains of morphine, by weight, administered invariably by the hypodermic syringe, and repeated after two hours if the convulsion returns, and, if still in labor, at the end of eight hours, any way. If the amount of the drug is guessed at by one not an expert, it should be doubled, *i. e.*, three grains given. III. "That I have never known a patient die of this disease when that medicine had been administered in season, in sufficient quantity and in the proper manner." Dr. Clark's wholesale denunciation of those remedies which, in our hands, have proved of inestimable value, notably, chloral hydrate, in large doses, per rectum, and his italicized statement that an easily borne labor insures immunity, which we know, to our sorrow, is not invariable, cause us to hesitate in accepting his dictum as to the absolute safety of from one and one-half to three grains of morphine administered hypodermically. We cannot help thinking that his remark that "It will help the timid to do this, to remember that, if the patient dies, her death will not be at all likely to be laid by the friends to our medicine, for it is well known that death in this disease is always by coma; neither is it necessary for them to know how much of it you have given," may unwittingly explain the universal success of the remedy (and dose), in those cases where it is given "in proper season."

Subinvolution.—It has puzzled us not a little to account for the rapidity of uterine involution in many of those cases where, per force, the patient has been permitted to rise at a comparatively early day, as compared with that in those cases where they have remained in bed the stipulated four weeks. To satisfy ourselves partially as to the correctness of the common teaching, we kept a record of a few cases with the following result: Out of a total of thirty-five cases, twenty-one got up between the eighth and the twelfth days; nine got up between the thirteenth and sixteenth days, inclusive; one on the twentieth; two on the twenty-first, and two on the twenty-eighth. Of the thirty who got up before the seventeenth day, but two have complained of symptoms referable to sub involution, and, of the fourteen who were subsequently examined, all were found to have completed the involution within four months of the confinement. Of the remaining five each has complained constantly and each has a marked subinvolution for which she is receiving treatment, the most recent case being now eight weeks past her confinement.

Coffee Versus Strychnia.—D. Attilio Lilli, reports in la France Médicale, some experiments on rabbits, in which coffee was found to be a sure antidote for strychnia. The power of coffee in neutralizing the effects of strychnia is noted by the same author in the human subject. This fact suggests the possibility of forming a valuable combination of citrate of caffein and strychnia, when large doses of the latter drug are desired, and the former is not contraindicated. By this means certain objectionable effects of the strychnia might be avoided, just as those of morphia are frequently antagonized by its combination with atropine.

Science.—This is a weekly record of scientific progress, illustrated. Subscription price four dollars a year. It is ably conducted and has already, in its infancy, secured a superior corps of writers. Its mechanical appearance is excellent. We know of no popular journal so well adapted to the needs of medical men who are desirous of keeping themselves informed in the current literature of popular science. It is with pleasure that we welcome this new journal to our exchange list, and give to it our unqualified approval.

Strabismus Operations are usually considered perfectly harmless. By a strange mishap, however, Dr. Haase, of Hamburg, has seen the most disastrous results in two cases, in both of which there was no reason for any unfavorable surgical prognosis. They are both reported in the present number of Knapp's Archives. The first case was a tenotomy of the external rectus necessitated by an insufficiency of the internal rectus. After the operation, which was done under chloroform, the patient, contrary to orders, was sitting up near a window. On the following night a chill occurred, the first indication of a phlegmonous inflammation of the ocular connective tissue. The inflammation ran its usual course, but produced atrophy of the optic nerve. In a second case the internal rectus was advanced for divergent strabismus, which had previously been operated on unsuccessfully. Without apparent cause an ulcer appeared on the cornea, which, in spite of treatment, increased and led to perforation and ultimate atrophy of the eye. We cannot see, however, in what manner the operation led to this result, and are more inclined to regard the second case as one of unfortunate coincidence. The phlegmonous inflammation of the first of Haase's instances is attributed by the author to an infectious origin, but the source of the infection could not be traced.

Writer's Cramp a Central Nervous Disease.—Dr. James T. Whittaker, in a communication to the Detroit Lancet, September, 1880, states as a fact what is probably not commonly known or recognized; that substitution of the other hand only changes the disease ultimately to that side. If this be true, and no good reason appears for questioning the reliability of Dr. Whittaker's observation, then it follows that the disease may be one essentially of the nerve centres, although the initial lesion may have been in the nerves which supply the muscles of the affected arm. This initial disturbance of these nerves probably involves the centres with which they are connected, by some process of extension. Several reasons suggest themselves in support of a central lesion: I. The affection is most common in subjects of the neuropathic temperament. II. It is often associated with other neuroses, such as facial spasm, strabismus, stuttering, chorea, paralysis agitans, epilepsy, psychosis. III. The disease generally returns, especially if writing be resumed. This would hardly be true if the disease were purely muscular. IV. But the most convincing reason is the one first mentioned, that changing the hand causes the disease almost invariably to change to the corresponding side. Admitting the lesion to be central, it follows that such treatment as galvanization applied simply to the affected muscles, tenotomy, and all other treatment directed solely to the muscles themselves, must fail to reach the true lesion. Even nerve stretching, which Dr. Whittaker suggests as a possible remedy, would, on this supposition, doubtless prove of little or no avail.

Atresia of the Genital Passages of Women.—This is the subject of an exhaustive paper by Dr. E. W. Jenks in the Chicago Medical Journal and Examiner, September, 1880. The following practical conclusions will be of interest: I. As fatal results have followed operations for the simplest varieties of atresia, the surgeon should apprise the patient, or her friends, of every possible danger prior to operating. II. In case of menstrual retention from vulvar, vaginal, or uterine atresia, the fluid should not be evacuated via the rectum with a trocar, but in the route pursued by the vagina. III. When there is reason for believing that there is a large quantity of menstrual fluid distending the uterus or fallopian tubes, the safest mode of evacuating it is by means of an aspirator prior to any surgical procedure for the cure of an atresia. IV. The evacuation of menstrual fluid should never be through a small orifice, (with the exception of aspiration), but through a free opening, after which the vigina and uterus should be thoroughly washed out with warm water, as the best means of preventing or curing septicemia or inflammation. V. Septicemia, inflammation and rupture of the fallopian tubes are the chief disasters attending atresia, or following

operations for its cure. VI. Congenital atresia of the vagina can be best relieved by tearing with the finger, as the rudimentary canal already existing serves a similar purpose to the surgeon that an instrumental director does in cutting operations, but the accidental forms require cutting, for which operation scissors are preferable to the knife; in some cases both cutting and tearing are requisite. VII. There is reason for believing that when there is an accumulation of menstrual fluid within the vagina and uterus, particularly within the latter, that the best time to operate is immediately prior to the menstrual date, as the potency of the newly-opened canal is thus better insured. VIII. Notwithstanding the dangers attending these operations, there is good reason for believing that by care and caution, and with a proper use of antiseptics, favorable results may be expected from operations for either congenital or accidental atresias.

Splanchnic Inversion.—A well-marked case of this monstrosity has been reported in the Moniteur du Calvados. In the post mortem examination, the body of a girl of seventeen, held by Dr. Dumont, of Caen, it was found that the whole of the viscera, although perfectly normal in form and structure, had undergone complete transposition. The left lung presented three lobes, the right two. The heart was situated on the right side, and the arch of the aorta directed to the same side. The left hypochondrium contained the liver; the right the stomach and spleen. The intestinal mass had undergone a similar transposition. As the relations of the organs to each other were perfectly retained, the perfection of their functions was in no degree interfered with.

M. Broca.—M. M. Henri Martin, Verueuil, Le Quatrefages, Meuier, Leguay, Topinard, Parrot, Gavarret, Pozzi, Ploix, and Magitat, have been constituted a committee by the Societé d'Anthropologie to collect subscriptions for a monument in memory of Professor Broca. Subscribers may address M. Masson Leguay, 3 Rue de la Saint Chappelle, Paris.

Post-partum Hemorrhage.—Dr. Geo. J. Englemann (St. Louis Medical and Surgical Journal) closes a paper with the following suggestions for the treatment of post-partum hemorrhage: I. External manipulation, pressure, and friction with the cold hand or with ice. II. Ergot; best subcutaneously, one or two large doses, while other manipulations are in progress. III. Introduction of the hand into the vagina, and, if no contractions follow, into the uterus; removal of the clots, and irritation of the surface in order to stimulate contractions. IV. The subcutaneous administration of ether; also, ice, or vinegar, if at hand, may now be tried in the uterine cavity, but, if they fail, must not be persisted in. V. The hot water douche, which, if it is not followed by the desired contraction, will at least stimulate the patient, and cleanse the cavity, so that the final, safest snd most reliable remedy may be resorted to. VI. The iron swab. This may be resorted to at once, if the introduction of the hand and the subcutaneous injection of ether fail, or after a trial of the hot water douche; but in desperate cases it must be resorted to at once, without losing time with other less reliable methods.

Parasitic Invasion of the Brain.—Ribbert, of Bonn, removed the brain of a man aged sixty-four years, and noticing a remarkable appearance of its surface at the time of the removal, preserved it in alcohol for future study, a period of two weeks. On careful examination at the end of that time, he found that the cortical surface appeared marbled, and that on slicing away the cortex, this marbling was not removed, but came out with greater distinctness, until the white substance was reached, where the appearance was less well shown. The markings were mostly circular, and exhibited a central dot; on a section perpendicular to the cortical surface the dot was found to be only the transverse section of a vessel. Microscopic investigation showed the latter to be filled with closely packed micrococci, while the light halo around each vascular branch was due to a molecular disintegration. Numerous soft-

ened or hemorrhagic spots, as well as cavities varying from the size of a pin's head to that of a hazelnut, were found scattered throughout every part of the brain, except the hemispheric cortex. Unfortunately the symptoms noted during life, were not very clear, although they pointed to a cerebral affection, nor was the cause of this remarkable parasitic invasion determinable. Several years ago we read a paper in the same Archives, in which Ribbert's article appears, namely, Virchow's, based upon the very careful autopsy, conducted by a pathologist of Brunswick, on his own child, which had, several months after exhibiting pharyngeal diptheritis, died with symptoms of progressive somnolence and stupor, without fever, or any other marked evidences of cerebral disease. In this case, the blood vessels, the perivascular spaces, and the nerve cells and neuroglia, were found filled with micrococci, and of a species which has been found so far only in the fluids or tissues of those suffering from diphtheria. Here the source of the invasion was evident. In one important respect the case of Ribbert differs from the latter one, namely, in the fact that the schizomycetes did not wander beyond the vascular confines.

A Peculiar Deformity of the Cranial Base.—Virchow, whose merit in having first scientifically described the racial and pathological aberrations of the cranium, seems to have been more or less ignored in the younger fame of Broca, left unfinished a study on a peculiar deformity which, usually associated with pathological states when met with in recent subjects, seems to have been not uncommon among the earlier inhabitants of the North Sea coast. It consists in a bulging upward of the parts around the foramen magnum, so that the cranial cavity becomes encroached on and narrowed in the perpendicular direction. Mechanically, it can be best pictured by supposing the base of the skull, while in a soft state, to have sunk down on and yielded immediately over the top of the vertebral column. However tempting it may be thence to deduce the fact that the deformity is due to an osteomalacia, or a rachitic condition of the skull, there is not a single fact to support this view. Grawitz, who has taken up the subject in Virchow's Archives, finds that it may be produced in several different ways. The most remarkable of these is through the traction exercised by the contracted sterno-cleido mastoid muscle, in Torticollis. In this case the deformity is often unsymmetrical. Premature ossification of certain sutures, and syphilis are among the other etiological factors observed. It is a noteworthy fact, to which the author does not himself seem to have given much attention that, of five cases in which the nervous and mental state was ascertained, one was a stammerer, a second epileptic, and two healthy, as far as known. The fifth case had a deformity of the helix, and was deaf on one side, owing to the derangement of the petrous bone through the anomalous influences brought to bear on it. Asymmetry of the face of an extreme degree was a common feature among these cases.

High Temperature.—Dr. P. Sue reports in the Michigan Medical News a case of complete suppression of the urine in a female, aged 30, for eight days, at the close of which period the temperature reached 112° Fahr., the pulse being 160 per minute. At this time an alcohol bath was given, and then she was covered up, and hot bottles applied. The skin now responded for the first time since her attack, though the treatment had been directed to it from the first; the temperature fell to 100°, the pulse to 80, and within a few hours the kidneys began to act. The case is remarkable as adding another testimony to those already on record of excessive high temperature followed by recovery. It is unfortunate that the doctor does not give more particulars, or even state where the temperature was taken, whether in the mouth or axilla.

Chloral Hydrate, according to Dr. Lebert, (Le Practician), may be deprived of the disagreeable sensation occasioned by its passage to the esophagus, by the addition of chloroform in the proportion of one part of the latter to fifteen of the former.

A Happy Explanation.—Many physicians and dentists will have occasionally observed that, in caries of the first molar teeth, there is an apparently sympathetic swelling and reddening of the lower eyelid of the same side. Parinaud, a French surgeon, had a case in which not only was there reddening and œdema, but also an abscess, which was followed by a fistulous opening, discharging pus until the carious first molar was removed, when the opening healed. In another, necrosis of the orbital rim had followed, and been relieved by a similar removal of the apparent cause. In the Archives générales de Médecine, Parinaud describes a thin, bony channel, of a diameter just sufficient to admit a bristle, whose upper opening is just in front of the lachrymal canal, and the lower empties into one of the alveoli of the premolar teeth. It probably contains a vein, and its almost constant presence explains what would otherwise appear a mysterious sympathy—the swelling or suppuration of the eyelid in cases of dental caries.

The Michigan State Board of Health in connection with the examination of candidates in sanitary science, has prepared a list of books suitable for reference and study, in preparation for this examination. Any person desirous of becoming a candidate for this examination, or wishing for any other reason to consult this list, may address Dr. Henry B. Baker, Secretary, Michigan State Board of Health, Lansing, Michigan. The list is full and complete and reliable, including the name of each book, the publisher's address, and the price. It may be of value to any one interested in the literature of sanitary science. This examination will be held annually at Lansing, beginning on the Wednesday before the second Tuesday in July. Applicants must be graduates of reputable medical colleges, or present satisfactory evidence of practical knowledge of chemistry, anatomy, physiology, pathology and toxicology. The standard of requirements will be such, so for as it relates to sanitary science, that any person sustaining the examination will be considered qualified to act as health officer of any township, city or village in Michigan. The examination will include the following subjects: I. Biology. II. The Nature, Causation, and Prevention of Disease. III. The Physical Sciences. IV. Sanitary Engineering, Apparatus, and Appliances. V. Sanitary Inspection. VI. Sanitary Law. In enterprise and serious work, the Michigan State Board of Health takes the lead.

Chancre of the Meatus and Urethra.—Dr. J. Nevins Hyde, in the Chicago Medical Journal and Examiner, August, 1880, introduces the following conclusions: I. Chancre of the meatus and of the urethra are symptomatically distinct. II. Chancres of the meatus are chiefly remarkable for their irritability, in consequence of the passage over them of the urinary current, their tendency to phagedena, and the characteristic deformity of the glands which they frequently occasion. III. Intra-urethral chancre, as distinguished from visible chancre of the meatus, and chancre involving in part only the rim of the urethral valve, is of exceedingly rare occurrence. IV. Intra-urethral-chancre, invisible, or but imperfectly visible to the eye, unaided by the endoscope, can usually be distinguished as such in consequence of the mass of induration which lies immediately beneath the urethral mucous membrane, at the site of the lesion, and is readily recognized by the touch through the external tissues of the male organ. V. Intra-urethral chancres are accompanied by very scanty or insignificant discharge, and when the latter is present it bears no proportion to the evident signs of disease connected with the sclerosis. VI. The reddened furrow or sulcus, covered with a thin secretion, visible in the floor of the fossa navicularis, especially in the subjects of gleet, should never be mistaken for intra-urethral chancre. VII. When a man exhibits a decidedly purulent urethral discharge, without coincident symptoms of unmistakable syphilis, he can be safely pronounced free from all danger of the last named disease, provided always the period of incubation of syphilitic chancre has, in his history, already lapsed. VIII. Intra-urethral chancre need therefore never be mistaken for gonor-

rhœal disease, as the two affections are so distinct that a differential diagnosis can usually be satisfactorily established without the aid of the endoscope. IX. For many reasons the endoscope should be regarded as a valuable adjuvant in the diagnosis of urethral disorders, and recourse should be had to it in all doubtful cases.

The Virginia State Medical Society.—Dr. C. A. Bryce, of Richmond, editor of the Southern Clinic, has recently been writing some rather lively editorials in criticism of the methods by which the State society is conducted. According to the "Clinic," Dr. Landon B. Edwards, editor of the Virginia Medical Monthly, is about the only beneficiary of this society. The society is charged with giving Dr. Edwards all the salaried offices, and with giving to his journal the publication of the transactions at a much higher price than the same printing would cost if given to the lowest respectable bidder to be published independently of any journal. It appears from the representation of the Clinic that the society is solvent, collecting annually seven hundred and seventy dollars, and voting that about seven hundred and seventy dollars be paid in one form or another to Dr. Edwards, for his services as recording secretary and treasurer, or in the shape of perquisites. It seems that of two thousand one hundred and twenty-six physicians in the state, only three hundred and eighty-five are members of the society, and that of this number only fifty-three were in attendance at the last meeting, and that fourteen of these were officers. The society is also charged with publishing fifteen hundred copies of the transactions, over and above the number necessary to supply every member, every exchange and every respectable journal in the United States, and with presenting the surplus fifteen hundred copies, at a cost of three hundred and fifteen dollars, to the recording secretary and treasurer. If the showing of the Clinic is reliable, and no counter evidence has appeared, it is evident that all of the business ability displayed by this society, may be accredited to the recording secretary and treasurer. Its scientific excellence, as determined by the transactions of the last meeting, is certainly in keeping with its alleged business qualities. Whether the latter deficiency depends upon the alleged loose management, we are unable to judge. We are disposed to admire the policy of Dr. Edwards in treating the editorials of the Clinic with silence, and this may be said regardless of the merits of the case, although we should be glad to have a statement of the other side. Even in the absence of such a statement, no good reason appears for any serious charge against Dr. Edwards, professional or moral. The society appears to be moribund, and to permit itself to be controlled by a single individual. Dr. Bryce is therefore on the right track.

The Saint Joseph Medical and Surgical Reporter, edited by J. P. Chesney, M.D., is a sprightly and interesting monthly of thirty pages. The third number, vol. I, has just come to hand. It has been prepared with judgment and care, and shows a large amount of editorial enterprise and ability. The subscription price is only one dollar a year. We can conscientiously advise physicians to take it, and judge of its merits for themselves.

The Silk or Stigmata of Corn.—New Remedies makes the following suggestion: The time of the year has arrived when the silk or stigmata of corn may be collected, and we suggest that our readers shall collect and prepare a fluid extract. It has of late received considerable attention as a remedy for cystitis, but as yet has been little used in America, owing to scarcity of the drug.

The Proper Field for Battey's Operation.—This subject was fully discussed at the last meeting of the American Gynæcological Association, by Dr. Battey himself. The Cincinnati Lancet and Clinic has a very full report of his remarks, of which we now present a careful abstract. The field of this operation is very restricted. It is not an operation of election. The operation is not to be selected in preference to other surgical procedures or expedients that may offer them-

selves. The case ought to be narrowed down to this expedient, or none at all. On the question of the effect on menstruation the doctor stated that the menopause had, in his experience, invariably followed the removal of both ovaries, but that the menses have continued to some extent when one ovary, or a part of one ovary, had been left. The operation is applicable only to cases which are incurable by any other means, cases which endanger life. They must be cases in which a change of life would give relief. The classes of cases which call for this operation are the following.

I. Congenital absence of the uterus, with more or less regular ovulation, and a violent perturbation of the nervous system at each molimen: These manifestations may become serious and unrelieved in the menstruation of nature. It is impossible to supply a uterus with which the patient may menstruate. Extirpation of the useless ovaries is therefore the only resource at our command. II. Complete occlusion of the whole metro-vaginal canal: This may occur as the result of plastic inflammation from parturition, or from other cause, and presents the same reason for oöphorectomy as do those cases of the first class. This class of patients are very liable to insanity unless relieved. III. Ovarian epilepsy: Here the distinction must be clearly marked as between this variety and the ordinary epilepsy, otherwise the operation may be criminally abused by its application in cases which have little or nothing to do with the ovaries. IV. Certain cases of pernicious amenorrhœa which may utterly destroy the life of the patient: It is not intended that this remark should apply to ordinary cases of amenorrhœa, or that under any circumstances the operation is a cure for amenorrhœa, but rather that certain aggravated cases of amenorrhœa, incurable by any other resource, may be relieved by removal of the ovaries. V. Cases of interstitial fibroid tumors, operated upon by Hegar, of Germany, not amenable to any other resource, and which cannot be safely subjected to the usual process for the removal of the tumors, but which are in constant danger of death from hemorrhages: The menopause follows the operation and the tumor gradually shrinks. Under these circumstances, the patient is usually sterile, and the operation is justifiable. VI. In certain incurable flexions, producing violent vascular and nervous prostration, and incurable by any other means, the operation is justifiable. VII. In the course of the operation of Cæsarian section, subsequent pregnancies may be avoided by removing the ovaries.

Local.—At the meeting of the West Chicago Medical Society—Dr. Norman Bridge, Pres., and Dr. R. S. Hall, Sec.—held September 13, Dr. C. W. Earle read an interesting and able paper on "The Opium Habit," in which he gave statistics of the opium inebriates of the city, their ages, sexes, stations in life, social condition, etc. He said that victims of the opium habit required more careful nursing, and closer attention during their treatment, than those addicted to the alcoholic habit. He considers it a vice of middle life, as the larger proportion of the cases known to him are from thirty to fifty years of age. The amount of the drug taken varies largely, some persons using sixty grains a day. The speaker did not consider the prognosis for final recovery good. As the patients were, as a rule, hyper-sensitive, they would resort to the drug, even after apparent recovery, on the slightest pain being felt. Dr. Earle does not think it safe to discontinue the use of the drug suddenly. His method is to diminish the dose gradually, and cease its administration on the fourth or fifth day of treatment. The final withdrawal of the drug is always followed by mental depression, diarrhœa, and intense muscular pain. He considers that the indiscriminate use of morphine by physicians is the cause of a large proportion of the evil. The paper closed with an appeal to the profession to be more careful in prescribing opium; never to allow a prescription containing opium in any form to be refilled, and urged them to never teach patients, without orders, to use the hypodermic syringe. Dr. Earle's paper will appear in full in an early issue of the Review. Dr. Danforth then exhibited pathological specimens of a tumor of the submaxillary gland, and a cystic kidney in the first stage of

development. Dr. H. M. Lyman followed with an exhaustive and able paper on "Nitrous Oxide Gas as an Anæsthetic," which included a historical sketch of this agent as an anæsthetic in minor operations, its effect upon the system, its safety as compared with other anæsthetics, and the feasibility of its use in graver surgical operations, by means of Prof. Berts' apparatus. It is to be regretted that Dr. Lyman was obliged to abridge his paper on account of want of time. The Society then adjourned to the twenty-seventh of September.

At Cook County Hospital, Dr. E. W. Lee has recently inaugurated a new treatment for burns and scalds—the application of lint saturated with chlorate of potash, and covered with mackintosh, to prevent evaporation. This method was first mentioned by the Dublin Journal of Medical Science, and its use has been followed by excellent results.

An attempt is being made to organize in this city a training school for nurses, on the plan of the school for nurses at Bellevue Hospital, New York. It is proposed to provide the wards of Cook County Hospital with nurses from the students of this school. The course of instruction will also include lectures.

Rush Medical College reports 348 matriculants, an increase of 80 over last year's number at this date. The building has been renovated during the vacation, and is now resplendent with paint and calcimine.

Dr. Fenger, assisted by Dr. Lee, operated, September 9, for dislocation of the hip of five years' standing, by chiseling off the head of the femur, and then bringing the limb into its natural position.

Dr. A. E. Hoadley reported, September 10, 1880, the death, from old age, of Mrs. Helen Hanley, a native of Ireland, at 772 West Superior St., aged one hundred years, six months and three days.

The public examination for internes at Cook County Hospital took place September 16. The successful candidates were Dr. Kendall and Dr. Meacher who assume their positions October 1.

Chicago Medical College anticipates a successful session, though the number of students will doubtless be smaller than it would be if the preliminary examinations and a three years graded course were not required.

Mr. Paton, chemist to the health department has recently made some careful and useful studies on the quality and adulterations of tea, which may be found reported in full in the daily papers.

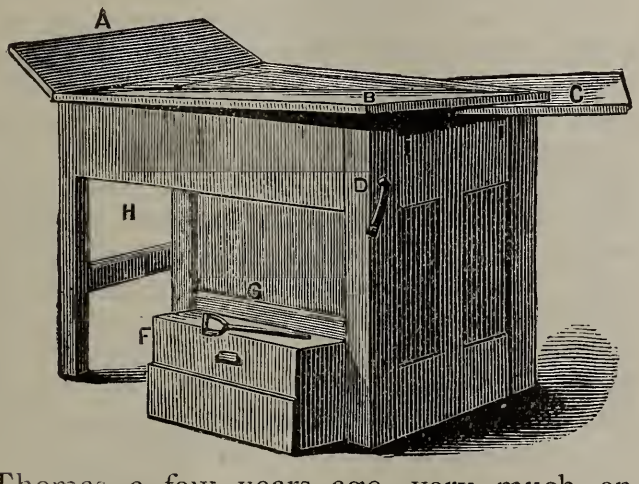
The Woman's Medical College, Chicago, will open its next regular course on the first Tuesday in October, and has in prospect a large and superior class.

The New York Letter.—Attention is called to the new salt of quinine, the quinia bimuriata carbimidata, mentioned by the New York correspondent in this number. This preparation promises to be of great value, particularly in hypodermic medication. The practical remarks on skin grafting in the same letter show that the methods adopted are very satisfactory.

Ozœna.—Dr. Wolfrau reports in the Berliner klinische Wochenschrift, the case of a patient, who had suffered for one year from a muco-purulent ozœna. The nasal douche of salt and water was employed twice daily, and following this, inhalations of tannin and glycerine and water (two per cent. solution), for five minutes. In a few days, a solution of acetate of alumina, one-half to one per cent. was employed. Cure followed in six weeks, and still remains permanent at the end of two years.

Dr. Byford's Gynæcological Table.—The accompanying cut represents a new table, or rather a very admirable combination of the excellent features of two or three well known varieties of tables. It is the device of Dr. William H. Byford, Professor of Gynæcology, Rush Medical College. Its length, thirty-nine inches, may be increased sixteen inches, by means of the swinging shelf A, which is here represented as tilted up at an obtuse angle to the plane of the table, but which may be adjusted at any angle, or may be dispensed with entirely, by permitting it to drop into the perpendicular position. The breadth is twenty-six inches. The top of

the table is an inclined plane, inclining from end to end. There is a difference of one inch in the height of the two ends, that toward the operator being the higher—thirty-two and one-half inches—so that the patient's hips may be raised a trifle higher than the shoulders. This inclination from end to end is notably less than that which has been used at the Woman's Hospital in the State of New York for many years, about two and one-half inches being the inclination adopted in that institution. It causes a corresponding upward inclination in the axis of the vagina, and thus facilitates a more direct transmission to the cervix of the light, coming, as it does, from a plane higher than the plane of the table. The advantages of this elevation of the hips will be especially appreciated in examinations with Sims' speculum, with the patient in the latero-prone position. Dr.



Thomas, a few years ago, very much enhanced this advantage by adding another inclination, the lateral, so as to raise the side of the table top, which is on the operator's left, about two inches. This made a double inclined plane, and gave to the operator almost as much light and room in the use of Sims' speculum as previously had been attained by the knee-chest position. The excellent feature of Dr. Byford's table, a feature which gives it a decided advantage over every other table now in use, consists in a very ingenious modification of the lateral inclination of Thomas, so as to do away with the disadvantage to the patient of lying, so to speak, on a side hill, which gives the sensation of a tendency to roll from the table. Dr. Byford, instead of raising the entire side of the table, divides the table top diagonally by means of a hinge attachment, so as to raise the corner B. This enables the operator, by turning the crank D, after the patient has been placed upon the table, to elevate the left hip of the patient to any desired point, and thereby to give the axis of the vagina a very decided inclination without materially changing the position of the body in other respects. The cut represents the corner B, as tilted up in the manner described. This, of course, would only be done in examinations with Sims' speculum. For examinations in the dorsal position, a uniform level would be secured by dropping the corner B, leaving only the end to end inclination. The shelf C, when the table is not in use, slides under the cover, out of sight. It is intended to be drawn out and pushed to the operator's right, and may be used as a place for instruments, or, in Sims' position, as a rest for the patient's feet. In the dorsal position, the feet are secured by stirrups, or, as many would prefer, they may rest simply upon the end of the table. The drawer F, upon which rests one of the detached stirrups, has a sliding cover, and may thereby be utilized by the patient as a step in taking her position. It will also serve as a convenient receptacle for any instruments, or cotton soiled during the treatment or examination. By sliding the cover over the drawer these may be concealed, and it may be again used as a step for the patient in getting off from the table. On the opposite side, the space above the drawer F, is occupied by two capacious drawers, which may be used for instruments and appliances. The end of the table toward the operator rests upon two rollers. The top may be covered with any kind of mattress which the owner may desire to use. The material is black walnut. Taken altogether, this may be pronounced decidedly the best table now in use. It combines all of the advantages of several excellent varieties, and adds to these the admirable feature of the hinge-jointed top as a substitute for Thomas' lateral inclination. Although intended as a gynæcological table, it is entirely adapted for general operations. It is made by E. H. Sargent & Co., 125 State st., Chicago. The price is forty dollars.

CONTRIBUTIONS.

THE USE OF BROMINE IN CONTRACTION OF THE LIVER.

BY J. S. JEWELL, M.D.

Professor of Nervous and Mental Diseases, Chicago Medical College.

For a number of years I have met with certain cases which have been, as a rule, of long duration, and in which there is chronic diarrhœa, or decided tendency towards looseness of the bowels, more or less gastric catarrh, variable dyspeptic symptoms, emaciation, at times a sallow skin, but no yellowness of the conjunctiva, gastric uneasiness, habitual scarcity or even absence of bile in the discharges from the bowels, and, finally, evident contfaction of the liver as determined by careful palpation and percussion. If in these cases there is actual contraction, and it may be atrophy of the liver, it is not difficult to account for the probable portal congestion, diarrhœa, etc., observed, on the very natural supposition of embarrassment in the circulation of blood from the portal system of veins. Whatever the pathological conditions may be, it is not my purpose to enquire into them at present. The clinical picture, drawn above in outline, is at times met with and easily recognized, and my present purpose is to call attention to a point in its treatment.

In quite a number of such cases I have found the persistent use of bromine, internally, to lead to marked good results. Its action is slow, and its use must be continued for months if it is to do good. My usual plan has been to give the bromine in solution and distilled water, ten drops of the liquid bromine to one ounce of water. The dose of this mixture should be five drops in water three times a day, to begin with. The dose may be increased one drop a day until it is plain the stomach will not easily tolerate a larger dose. If the stomach should become irritable, as a result of the use of the remedy, it may be necessary to reduce the dose to one or two drops, or even cease its use altogether for a time, to resume when the stomach will tolerate it again. It should be given in a considerable quantity of water, as it is likely otherwise to irritate the stomach. Of course the use of the bromine does not prevent the employment of most other remedies, such as the case may require from time to time.

Under the use of bromine I have usually seen, after a time, less disturbance in the gastric zone, less diarrhœa, a reappearance of bile in the discharges from the bowels, and a slow but general improvement in the condition of the patient. I do not think it necessary to cite cases, and am not prepared to speculate as to the modus operandi of the drug. This note is written, as already intimated, with the design of calling the attention of the profession to what seems to me to be a practical observation of value in the treatment of a certain class of refractory cases.

LACERATION OF THE CERVIX.

How it Causes Uterine Catarrh and Erosion of the Cervix.

BY E. C. DUDLEY.

The relation of laceration of the cervix to uterine catarrh, and to the various erosions of the uterine canal, and of the cervix, has occupied the attention of the profession, during the past two years, more than any other gynæcological subject. By many the existence of such a relation has been questioned, and to others who acknowledge the relation, the explanations hitherto given have been either insufficient or unsatisfactory. A very simple a priori cxplanation is the following:

According to a physiological law, the irritation of the mouth of any duct will always stimulate the secretion of the gland or glands, from which that duct proceeds. This general principle must apply in pathology as well as in physiology. It will not be denied, moreover, that an ununited laceration would be a considerable cause of irritation to the opening of that duct, which is called the uterine canal. This irritation clearly would stimulate the secretion of the countless muciparous follicles in the membrane of the endometrium, and, if long continued would necessarily cause their natural mild, alkaline secretion to increase in quantity, and to degenerate in quality, to a pathological extent, or in other words, to become catarrhal. This catarrhal secretion is irritating, almost corroding, and the delicate endometrial membrane, unaccustomed to its presence, easily takes on permanent congestion and erosion, an erosion which, for reasons already implied, extends from above downwards, because the discharge flows in that direction, until it has reached and involved the lips of the lacerated cervix.

Dr. Emmet teaches that the erosion takes its beginning directly from the lacerated cervix, and extends upwards into the uterine canal. The above explanation is submitted as supplementary to that of Dr. Emmet, and the question is raised whether the operation of trachelorrhaphy does not cure the catarrh by removing a source of irritation, from the outlet of a canal, which has excited the secretion of the glands from which the canal proceeds, until the secretion had become pathological.

*HEPATIC AND NEPHRITIC COLIC.**

General Characteristics of Painful Localizations in the Latter.

BY J. CORNILLON.

All other things being equal, the migration of renal calculi is more tedious and more painful than that of biliary concretions. This is not astonishing, since the distance between the gall-bladder and the ampulla of Vater, is less than that between the pelvis of the kidney and the meatus. The passage of these concretions through the urinary channels does not always give rise to very serious accidents. We see, indeed, people who pass fragments of gravel without much suffering; but, more commonly, this passage is preceded by characteristic colic pains, with definite painful points succeeding each other, as the calculus passes down its route, in this differing from the painful points of hepatic colic, which are developed simultaneously, and preserve their fixed position during the whole duration of the attack.

I. LUMBAR POINT.

This is constant, and corresponds exactly to the organ diseased. Rarely at the commencement the pain occupies the whole lumbar region, but ordinarily it is localized on one side or the other, and when we search carefully for its maximum, we generally find it a little external to the spinous processes of the second and third lumbar vertebræ. The irradiations from this point toward the corresponding flank, and the only ones recognized, occur at the moment of the paroxysm of colic, and confound it with the renal point, of which we shall presently speak.

The pain is of a heavy internal sort; energetic pressure on the sacro-lumbar muscles adjoining the spinous processes of the first three lumbar vertebræ always aggravates it, while pinching of the skin is absolutely unfelt. In other cases the patient feels deep pulsations, which seem to indicate that the foreign body is commencing to engage itself into the ureter. Whatever may be the form of the pain at the lumbar point, movements can never be affected without causing outcry and groaning.

This painful point persists during the whole duration of the attack of nephritic colic, but diminishes in intensity as the calculus approaches the meatus. Nevertheless, it is still appreciable after the attack is entirely over, so that for a considerable time the patients cannot ride on horseback, or in a jolting wagon, without exposing themselves to its recurrence. Although it has an undeniable symptomatic value, it is not pathognomonic, as it is observed in patients suffering from albuminous nephritis.

RENAL POINT.

This corresponds, like the last, directly to the lesion, and like it, is constant. Its usual location is the left side; sometimes it is found on the right; very exceptionally on both sides.

We can exactly fix the location of this renal point only at the commencement of nephritic colic; then we find it in the middle of a line passing from the margin of the false ribs to the anterior superior iliac spine of the same side. Gradually it extends towards the umbilicus and the hypogastric and epigastric regions; in this latter case it causes reflex movements of the stomach, which reveal themselves by nausea and vomiting. At the height of the attack any localization of pain is impossible.

The renal point is deeply situated. It is characterized sometimes by lancing, sometimes by tearing, sometimes by burning pains. Cutaneous hyperæsthesia seldom accompanies it, but ordinarily pressure aggravates it. Nevertheless cases occur in which energetic pressure with the back of the hand relieves it; but these are exceptional. Its usual intensity is such that the patient cannot lie on the affected side.

The renal point possesses a great symptomatic value. Its usual locality on the left side permits an almost instantaneous diagnosis of renal rather than biliary calculus; when it occurs on the right side, some reservations are necessary.

II. INGUINAL POINT.

As the calculus descends the ureter and approaches the bladder, the suffering increases. In severe attacks of nephritic colic, the whole iliac region quickly becomes the seat of pain, without any possible localization of its maximum. The patient is thrown into a state of inexpressible anguish; he energetically compresses the abdomen, in the hope of calming the pain, which from time to time ceases, to commence again when the calculus, forcibly impelled by the urine, reaches a still lower portion of the ureter.

When the colic is less intense, and when we are able to follow step by step the development of its spmptoms, we frequently find, if we proceed methodically, a local painful point at the horizon of the external orifice of the inguinal canal corresponding to the involved kidney, and two or three centimetres external to the spine of the pubis. The sensitive zone is nearly as large as a five-franc piece; it is characterized especially by lancinating pain, sometimes by burning pain. Frequently it is relieved by pressure; rarely this

*Translated and condensed from Le Progres Medical, Aug. 7, 1880.

aggravates it. I have seen, this present year, a young man from Puy-de-Dôme, who relieved the intensity of this painful point by pressing the end of the index finger into the inquinal canal and holding it there some minutes. The pressure he thus exercised on the spermatic cord sufficed to arrest the pain.

The inguinal point, though not rare, is not as constantly present as the two preceding ones, and its symptomatic value is not yet clearly established.

THE TESTICLE, AND LABIUM MAJUS.

The excitation of the nerves of the cord that have to do with the production of the painful point we have noticed above, is also the cause of the testicular point in man, that of the labium majus in woman.

In the first case, the suffering ordinarily shows itself by the retraction of the organ which rises to the level of the external orifice of the inquinal canal. This retraction is almost always accompanied by an extremely painful sensation of weight. In other cases there is a true painful point corresponding to the construction where the cord joins the epididymis; that is to say, at about the extremity of this last appendage. This point is spontaneous, and increases in intensity by pressure, or by movement. It is rarely the case that this sensitiveness does not rapidly involve the whole testicle, which increases in volume, and becomes reddened and hot, setting up a genuine orchitis. The facts of this kind are, I admit, quite exceptional; but they exist, and I myself have seen one very marked case that only yielded after eight days of energetic treatment.

Sometimes the painful region involves the whole of the testicle and the spermatic cord, without developing anywhere any maximum whatever. The multiplicity of forms that this point takes on, its mode of development and variable progress according to circumstances, do not destroy its symptomatic value. Its constant occurrence places it in the first rank among the signs of nephritic colic.

In the female, the painful point of the labium majus, due to the same cause as the preceding, like it is rarely lacking, and like it also, is a marked symptom of renal lethiasis. On account of the small extent of the organ involved, and with the known repugnance of patients to the examination of their sexual parts, it is not always easy to make it out. Nevertheless, it seems to me that most frequently the maximum of the pain corresponds to the upper portion of the labium majus, and is almost confounded with that of the inquinal point. But also it happens occasionally that the whole labium is sensitive, reddened and turgid, without one point being more painful than another.

In all cases, the suffering is acute and aggravated by the least touch. It always renders the patient melancholy and unquiet, and is sometimes the cause of convulsive attacks.

All the points that we have studied are direct, the reflex irradiations produced on the stomach during nephritic colic not being properly reckoned in the same category. They have, besides, a common character; that is, they diminish in violence as soon as the calculus has made its exit from the ureter and entered the bladder.

When the urinary concretion reaches the neck of the bladder, the greater part of its task is accomplished. Indeed, its migration from this is effected without much difficulty; the patient complains for a few days of smarting or burning along the canal of the urethra, and limited to it. Nevertheless, it once in a while happens that a fixed pain appears in the urinary meatus, accompanied with redness and heat. This is a veritable meatic point, occasioned by the passage of the renal calculi. It lasts often several days, only ceasing when the gravel is completely expelled.

During the course of an attack of nephritic colic of moderate intensity, it is not rare to observe in the thigh of the side corresponding to the affected kidney formication, numbness or even true, fulgurant pains. The common origin of the genital and femoval nervous branches, and the anastomosis of this latter with the crural nerve, readily account for the appearance of these symptoms; but as they occupy a very extended surface, without any well-defined point of maximum intensity, we limit ourselves to merely mention them.

In closing, we would state that there does not exist the least resemblance between the painful points of hepatic and nephritic colic. Indeed, the first are incomparably less painful than the second; moreover, they are located at the base of the thorax, and above (epigastric, cystic, dorsal and scapular points), while the others occupy the lower portion of the body (renal, lumbar, inquinal, testicular, etc., points). In dubious cases, the exact determination of their respective positions is an excellent element in their differential diagnosis.

THE INTERNATIONAL MEDICAL CONGRESS, to be held in London August 1881, will exclude women from admission to its meetings. Invitations will be issued only to male practitioners.

CORRESPONDENCE.

NEW YORK, Sept. 10th, 1880.

The month of September is in this city a month of preparation for the winter's work. Physicians are returning from their summer excursions refreshed by the weeks of rest and recreation, and ready to take hold of their work with new interest. The medical schools are arranging their courses of lectures for the winter, and urging their respective merits upon the many students who apply for information at this time. And the various societies are holding their first meetings after the vacation, and organizing for more effective work during the coming year. The advantages of an eight months' course in the medical schools are evident from a glance at the schedules of lectures and clinics issued by the two chief institutions of this city, which have lengthened their winter session. Instead of seven lectures a day only four are at present to be delivered, thus affording time to the student for dissection, quizzing and attendance upon clinics, all of which had to be neglected under the old arrangement. The increased number of lectures in each department will also be an advantage, enabling each professor to treat his subject more fully and exhaustively, and doing away with haste and incompleteness in the work done. Good results may be expected from these changes, and it is hoped that they will lead to further improvements in the department of medical education, in which many reforms are still too evidently demanded. An entrance examination, for example, which should weed out a few of the great class of "ignoramuses" would be a highly commendable innovation.

SKIN GRAFTING.

The subject of skin grafting has been brought into special notice by a number of prominent cases which have been reported recently; and as various details were being discussed, and questions arose regarding methods of procedure, it was decided to test different theories by a series of experiments at Bellevue Hospital. The results of those experiments are now on record, and as the conclusions drawn form them have considerable value from a practical point of view, they may be of interest to your readers. It has been found that the most important factor in securing success is to have the ulcerated surface upon which the grafts are to be placed in a condition favorable for their reception. The proper condition is one in which the surface is covered with healthy granulations, and when such a surface is secured success is ensured with the aid of a very few precautions. Many ulcers, however, do not present a proper surface, and in these it is necessary to change the existing condition before proceeding to graft. This can usually be done by proper treatment. A surface, for example, which presents exuberant granulations must be reduced to a healthy condition by poultices, hot fomentations, etc., while one that is pale, insensitive, and is surrounded by hard edges, must be stimulated by incising the edges and by the application of stimulating lotions. The importance of this preliminary step is much insisted upon, and a large part of the success in grafting will depend upon the ability of the surgeon in securing a healthy surface at the outset. Writers upon this subject have supposed that it was indispensable to success in grafting that the graft should be taken from a tissue containing epithelial cells, and hence skin has been the tissue usually selected. Some have claimed that as good results may be obtained by sprinkling epidermic scales upon an ulcerated surface as by transplanting pieces of skin. The experiments contradict these propositions.

It was found that bits of muscle, absolutely free from epithelial cells, might be grafted with as good result as bits of skin. And, on the other hand, no effect has been produced by sprinkling epithelial cells upon ulcerated surfaces, even when the surface was in good condition and the process was carefully conducted. As the chief theory explaning the process of skin grafting rests upon the necessity of the presence of epithelial cells, the fact that muscle will graft and produce a good result is somewhat remarkable, and demands an explanation. The fact is well substantiated by a number of cases, though no explanation is offered. It was further found, that skin or muscle taken from a body which had been dead not more than six hours would graft readily upon the living surface. Tissue from bodies or amputated limbs has been used in a number of cases successfully, and the limit of six hours after death was adopted, not from failure of grafts, but from fear of septic poisoning after that time. One case is on record, however, in which over 70 grafts were taken from the skin of a scrotum which had been removed in an operation for varicocele ten hours previously, and over one-half of these were successful. The size of the grafts varied greatly, but it was found that those which measured from two to three lines in diameter gave the best result. In transplanting the skin of a negro to a white man the pigment was observed to disappear wholly in the course of three days, and none was visible in the scar; while, on the other hand, when a white man's skin was implanted upon a negro it acquired a

pigment in about the same time. The method of grafting which yielded the best result was as follows: The surface having been brought into a condition of healthy granulation, grafts two lines in diameter were applied over the whole surface, within half an inch of each other; a piece of oil silk, or of the green protective used in Lester's dressings, was then laid upon the surface, and strapped down with bands of adhesive plaster, over which a bandage was loosely applied. The part was kept at rest, with the dressing intact, until the third or fourth day, when it is carefully removed. It was found that in most cases the grafts had taken, and the cicatrization was progressing by that time. The oil silk was used to hold the grafts in position, and to prevent them from being pulled off, as they would have been had they been adherent directly to the adhesive plaster. The subsequent dressing was usually one of simple vaseline upon lint, though in some cases a single application of balsam of Peru seemed to accelerate the process of healing. In the hospital this method is largely used in the treatment of ulcerated surfaces and burns, and has been followed by very good results. A single case which has attracted some notice may be mentioned here, although it did not occur at Bellevue. Four years ago, a girl, while working in a cotton factory, was caught by the hair in the machinery, and her whole scalp was torn suddenly from the calvarium. Under careful treatment the wounded surface began to cicatrize, and was gently stimulated until healthy granulations were secured. Grafts were then applied, and have been repeated, and it is said that during the past four years 14,000 have been placed upon the wound. Only a small proportion of these have taken, and the process of cicatrization has been a slow one; but a large number have been successful, and at present she has almost entirely recovered, a new skin having been thus secured for the whole top of the head. Several cases nearly as remarkable have been reported, but at present this seems to afford the most encouragement to those who are pursuing the process of skin grafting.

THE HYPODERMIC USE OF QUININE.

This is gaining favor among practitioners, but has in many hands been attended with unfortunate results, from the irritant qualities of the solutions employed. It is a small matter to treat the abscesses which result, but it is not a pleasant one for either patient or physician. Various preparations for hypodermic use have been proposed, perhaps the best being that of Lente, the formula of which is well known. As the results with this preparation were not wholly satisfactory, one of the physicians at Bellevue has been experimenting with various solutions, and his results, recently published, are as follows: He has found that a solution of a salt discovered by Drygin, the "quinia bimuriata carbamidata," or the double hydrochlorate of quinia and urea, is superior to any other for this purpose. He gives a careful account of the method of preparation, which is, however, of interest rather to pharmacists than to physicians. The salt is soluble in twice its weight of water, forming a dense straw-colored solution of oily consistency, and unalterable in air. It is also soluble in alcohol. It contains 69 per cent. of pure quinia. It is not at all irritant, requiring no acid to dissolve it. Having used it in over 100 subcutaneous injections, ranging from two to forty minims each, there did not result a single abscess, and in many cases there was even no redness visible. It is claimed that from its greater strength this salt is superior to any other, since only one-half as much as of Lente's solution is required to produce cinchonism. The solution has been employed in cases of patients comatose, with high temperature, where the antipyretic action is needed at once, and where the drug cannot be given by the stomach or rectum. It has also been used in children's cases. It promises to be a very useful preparation, and will probably take the place of others for hypodermic use.

PLEURISY WITH ADHESIONS.

The patient was a male about fifty years of age. He complained of pain in his right side and back at the level of the three lower ribs. The pain has persisted for two months, and prevents his working, as he cannot stoop, nor take a long breath. His general condition has been good; his appetite is fair, he has no cough, and has not lost flesh. He suffers much from pain, and has some dyspnœa on exertion. On physical examination slight dullness was found over the lower lobe of the right lung, and a friction sound could be heard. The diagnosis of dry pleurisy was made by Dr. Delafield, but it was thought to be dry pleurisy with adhesion, and not simple dry pleurisy, which runs a short course and seldom leaves persistent pain. The patient did not give a history of repeated attacks, but of a single attack. There was no evidence of chronic interstetial pneumonia, as there were no constitutional symptoms. Hence the case was considered as one in which, after an ordinary attack of dry pleurisy producing a layer of fibrinous adhesions, a continuous formation of connective tissue began, and is continuing. This layer of new connective tissue replaces the layer of fibrin

produced by the initial attack, and extends independently. New tissue forms on both pleura, and adhesions take place between the layers, causing a thickening of the pleura, and giving rise to dullness and friction sounds. Pathologically, the process differs from a simple dry pleurisy, since the product of the inflammation is new connective tissue primarily, and not fibrin, which becomes afterward organized. This form of pleurisy has an unfavorable prognosis. The process goes on slowly but steadily, and the new connective tissue extends over the whole pleura, covers the lung, and causes permanent adhesions between the lung and the chest wall. These cases usually end in the development of phthisis. The treatment to be pursued is persistent counter-irritation by blisters, in order to arrest the spread of the adhesion. The form of pleurisy has only been recognized within the past two years, but differs so decidedly from simple dry pleurisy in its pathology, history, and prognonsis as to deserve separate consideration. S.

REVIEWS.

Wood's Library of Standard Medical Authors. The Surgery, Surgical Pathology and Surgical Anatomy of the Female Pelvic Organs in a Series of Plates taken from Nature, with Commentaries, Notes and Cases. By Henry Savage, M.D., London. Third edition revised and greatly extended; 32 plates and 22 wood engravings, with special illustrations of the operations on Vesico-Vaginal Fistula, Ovariotomy and Perineal Operations. New York, William Wood & Company, 1880; W. T. Keener, Chicago.

When the announcement was first made that Wood's Library would include Savages' plates, we expressed the opinion that they would be a valuable addition to the series. Indeed no gynæcological library is complete which does not contain this sturdy old pioneer in the illustrated literature of gynæcology. But so rapid has been our advance in the anatomy of these organs, and in their surgical treatment, that the book, with its prestige, is already chiefly useful as an index to the state of gynæcology as it was several years ago. This may be said with reference both to its plates, which are excellent reproductions of the original, and to the text which is anatomically and surgically replete with serious faults, although in the preface it is said to have been thoroughly revised. A time-honored classic, like some time-honored men, it justly commands respect, regardless of its defects. The flattering notices which it is receiving on all sides from reviewers who, for some reason, do not portray these defects, will doubtless convey to the profession a sufficiently exalted idea of its merits. We shall, therefore, confine ourselves chiefly to a consideration of some of its numerous demerits, and shall judge of them, not from the standpoint of the day in which they were originally published, but from that of to-day.

The first twelve plates, with their accompanying texts, are chiefly descriptive, and in no respect are superior to those of many standard works on general anatomy, while their grade is far below that, for example, of Sappey and of Hirschfeld. The thirteenth plate, which is presumed to represent the pelvic organs in their normal positions and relations, as a specimen of engraving, is excellent; but it is difficult to see how an anatomist, who had made his studies upon nature, could possibly be guilty of such distortions. For example, according to this picture, supposing it to be enlarged to the life size, the vesico-vaginal septum would be about one inch thick, while the perinæum, by comparison, appears rudimentary, the space between the urethra and the nearest part of the pubic bone would be nearly an inch in thickness. The urethra would be one and one-fourth inch in length, which is not far out of the way, and the distended bladder about one inch in diameter. According to this plate, an incision commenced in the median line of the posterior vaginal wall, an inch below the utero-vaginal attachment, and carried directly backward, so as to open the rectum by the shortest route, would be likely to invade Douglas's cul-de-sac of the peritoneal cavity, before it could reach the rectum. The axes of the uterus and vagina, instead of having an angle each to the other of ninety degrees or less, lie almost in the same line. The rectum is represented as distended and as occupying at least one-third of the entire pelvis. But the most glaring and the most ridiculous defect relates to the position of the uterus. The cervix uteri is represented as swung exactly midway between the inner surface of the pubis and the hollow of the sacrum. Let us see how impossible this position must be.

The normal average distance of the anterior wall of the cervix, from the pubic bone, is two and one-half inches; according to the plate the distance of the posterior wall of the cervix, from the hollow of the sacrum, is equally great. Add to these two measurements one inch as the diameter of the cervix, then will the plate represent the antero-posterior diameter of the female pelvis, as six inches long instead of the true measurement,

four and one-third inches. On the basis of a measurement of four and one-third inches, the distance from the posterior wall of the cervix to the hollow of the sacrum, may be considered as five-sixths of an inch; the diameter of the cervix as one inch, and the distance from the anterior cervical wall to the outlet of the vagina, or to the inferior extremity of the symphysis pubis as two and one-half inches. The sum of these measurements, which, approximately are correct, equals the four and one-third inches. So much for the respected literature of modern antiquity, illustrated by plates drawn from the imagination, hardly from nature.

Here follow over fifty pages of text, which for the most part is bad or indifferent. A paragraph like the following should not escape criticism if published at any time within the last decade:

"Should there be considerable lateral hypertrophy of the sub-vaginal cervix, there will be a marked outward resemblance to ordinary uterine prolapse. In such cases the retro-uterine peritoneal fold is often below the level of the os."

This so-called lateral hypertrophy is now known to be a myth, and the presence of the retro-uterine peritoneal fold," "below the level of the os," is recognized as due to that reduplication of the vaginal walls, which is commonly associated with extensive laceration of the cervix, and which renders its diagnosis difficult except by means of the uterine tenacula and Sims' speculum. In this "thoroughly revised" text, mention is made of kolpo-cystotomy as a substitute for lithotrity, but no legitimate place is given to this operation in the treatment of chronic cystitis. This is a serious omission, but, unfortunately for the book, it is only one of many. A redeeming paragraph is the following:

"No surgical proceeding whatever, touching any part of the uterine system, should be unattended by the precautions observed in operations of a grave character there or elsewhere; in certain states of the general system, unforeshadowed by any recognizable peculiarity, the most trivial operation has been speedily followed by fatal peritonitis."

The wisdom of the above is eclipsed by that which gave rise to the following ridiculous outburst of pathology and therapeutics:

"The majority of uterine affections, really local, that is, not constitutional, depend on an unwholesome condition of the inner surface of the uterine, not the cervical cavity, or morbid antagonism between the uterus and cervix, one or both often cured by simple dilatation of the latter."

It is difficult to imagine another sentence of equal length in which uterine pathology and therapeutics could be more hopelessly encumbered.

Those plates which have to do with the nervous system, and the lymphatics in their relations to the pelvic organs, have been taken from Hirschfeld, and from other reliable authorities. The plates illustrating the operation of perinæorrhaphy are descriptive of the old quill-suture operation of Baker Brown, to the strict adherence of which no practical gynæcologist now holds, because it fails to restore the normal triangular perinæal body, and therefore fails to afford support. The author mentions his own operation, which is somewhat preferable, in a word, and this is all. A useful book should describe fully the more modern and better procedure, and give the passing mention to the old and useless one; but such a course was not pursued in this edition of Savage's plates.

The representation of the operation for vesico-vaginal fistula is from the old original plates of Dr. Sims, since the publication of which several improvements have been made, especially in the matter of denudation, which, in a "thoroughly revised" work, ought to be mentioned, but they are not. The very short chapter on this subject is a bad abstract of the widely circulated descriptions made by Sims and Emmet years ago. The subject of laceration of the cervix, as would be expected, is not included, in the plates on operative gynæcology. This omission is in keeping with the general tone of the book.

Several plates are introduced to illustrate the removal of tumors connected with the uterus by gastrotomy. These plates, with their accompanying text, satisfactorily explain the fearful mortality which attended the operation of laparotomy in the dark ages of abdominal surgery.

The book closes with four plates in illustration of uterine displacements, but not even antiquity entitles them or their accompanying text to particular respect.

This volume, with its "thoroughly revised" text, seems to be an attempt at the resurrection, on its classic reputation, of a moribund book, which, having already outlived its usefulness, will hardly compete successfully with the magnificent and more modern works of such men, for example, as Braune.

Old books, which have been superceded by better new ones, like the old gods, are interesting as matters of history, but any attempt to revise and bolster up their defects, with a "thoroughly revised" text, necessarily develops in the reviewer a most iconoclastic spirit.

THE ARMY.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from Aug. 29, 1880, to Sept. 12, 1880.

The following promotions and appointments are published:

Campbell, Jno., lieut-colonel and surgeon. Medical director, Department of the South. Granted leave of absence for twenty days. S.O. 103, Dept. of the South, September 1, 1880.

Moore, Jno., major and surgeon. Having relinquished the unexpired portion of his leave of absence, will report in person to the surgeon general in this city. S.O. 192, A.G.O., Sept. 9, 1880.

Huntington, D. L., major and surgeon. To accompany the President and General of the army to California, Oregon, Washington Territory, Arizona, New Mexico, Colorado and Kansas, and then return to his station in this city. S.O. 182, A.G.O., Aug. 8, 1880.

Taylor, M. K., captain and assistant surgeon. His assignment to duty at Fort Concho par. 2, S.O. 161, C.S., revoked. S.O. 176. Department of Texas, Aug. 30, 1880.

King, Wm. H., captain and assistant surgeon. His sick leave granted him July 21, 1880, from Headquarters Department of Dakota, extended three months on surgeon's certificate of disability. S.O. 188, A.G.O., Aug. 30, 1880.

Cronkhite, H. M., captain and assistant surgeon. Having reported in person at these Headquarters, is assigned to temporary duty at Fort Sidney, Neb. S.O. 83. Dept. nf the Platte, Sept. 7, 1880.

Harvey, P. F., captain and assistant surgeon. At expiration of his present leave of absence, to report in person to the Commanding General, Department of Dakota, for assignment to duty. S.O. 182, C.S., A. G.O.

Moseley, E. B., captain and assistant surgeon. The leave of absence granted him from Headquarters Department of the Platte, Aug. 17, 1880, is extended two months, S. O. 187, A.G.O., Sept. 3, 1880.

Reed, W., captain and assistant surgeon. Assigned to temporary duty with U. S. troops at Creedmoor, Long Island. S. O. 156, Department of the East, Sept. 6, 1880.

Worthington, J. C., captain and assistant surgeon. Relieved from duty in Department of Arizona, to proceed to Baltimore, Md., and on arrival report by letter to the Surgeon General. S.O. 182, C.S., A.G.O.

Reed, Walter., captain and assistant surgeon. To report in person to the Commanding General. Department of the East for assignment to duty. S.O. 182, C.S., A.G.O.

Carter, W. F., 1st lieut. and assistant surgeon. His assignment to duty at post of San Diego, Texas, par. 2, S.O. 161, C.S., revoked. S.O. 176, C.S. Department of Texas.

Burton, H. G., 1st lieut. and assistant surgeon. Relieved from duty in Department of Arizona, to proceed to Boston, Mass., and report upon arrival there by letter to the Surgeon General. S.O. 182, C.S., A. G.O.

By par. 2, S.O. 190, A.G.O. Sept. 7, 1880, the following changes are made to take effect October 1, 1880:

The followiag named officers are relieved from duty in the Department of the East, and will report in person to the Commanding Generals of the Departments set opposite their respective names for assignment to duty:

Assistant surgeon D. G. Caldwell, Department of the Platte; J. H. Patzke, Department of the South; B. F. Pope, Department of Dakota; W. J. Wilson, Department of Dakota.

Assistant surgeon Frank Meacham is relieved from duty in the Department of Texas, will proceed to Boston, Mass., and upon arrival report by letter to the Surgeon General.

Assistant surgeon R. H. White will report in person to the Commanding General, Department of West Point for assignment to duty at the United States Military Academy, relieving assistant surgeon Henry Lippincott, who, when relieved, will proceed to New York City, and upon arrival report by letter to the Surgeon General.

Assistant surgeons M. K. Taylor and J. H. T. King are relieved from duty in Department of Texas; will proceed to New York City, and upon arrival report by letter to the Surgeon General.

Assistant surgeon W. Matthews will report in person to the Commanding General, Department of the Missouri, for assignment to duty.

Assistant surgeon T. A. Cunningham is relieved from duty in Department of Dakota, will proceed to New York City, aud upon arrival report by letter to the Surgeon General.

Dr. J. Nevins Hyde, senior editor of the Chicago Medical Journal and Examiner and professor of dermatology, Rush Medical College, has recently been made president of the American Dermatological Association.

MORTALITY IN CHICAGO FOR AUGUST, 1880. POPULATION, CENSUS 1880, 503,298.

Oscar C. DeWolf, M. D., Commissioner of Health. M. K. Gleason, M. D., Registrar of Vital Statistics.

ZYMOTIC.

ORDER 1—*Miasmatic.*

Carbuncle	1
Chicken Pox	1
Cholera—Infantum	162
Cholera—Morbus	11
Croup	23
Diarrhœa	23
Dysentery	12
Diphtheria	52
Entero-Colitis	34
Erysipelas	3
Fever—Cerebro Spinal	4
Fever—Intermittent	1
Fever—Remittent	2
Fever—Scarlet	30
Fever—Typhoid	21
Fever—Typho-Malarial	3
Fever—Typhus	1
Measles	6
Pyæmia	3
Septicæmia	2
Small Pox	1
Whooping Cough	7

ORDER 2—*Enthetic or Inoculated.*

Syphilis—Congenital	1

ORDER 3—*Dietetic.*

Alcoholism—Chronic	1
Inanition	25

CONSTITUTIONAL.

ORDER 1—*Diathetic.*

Anæmia	1
Cancer—Bowels	1
Cancer—Breast	1
Cancer—Eye	1
Cancer—Leg	1
Cancer—Liver	2
Cancer—Pharynx	1
Cancer—Stomach	3
Cancer—Uterus	2
Marasmus—Senile	5
Marasmus—Infantile	13
Rheumatism	2

ORDER 2—*Tubercular.*

Hydrocephalus	7
Hæmoptysis	1
Phthisis Pulmonalis	68
Tabes Mesenterica	2
Tubercular Meningitis	2

LOCAL.

ORDER 1—*Nervous.*

Apoplexy—Cerebral	9
Cerebritis	2
Congestion of Brain	11
Concussion of Brain	1
Convulsions—Infantile	81
Encephalitis	12
Epilepsy	2
Insanity—Dementia	1
Meningitis—Cerebral	19
Meningitis—Spinal	4
Myelitis	2
Paralysis	3
Softening of Brain	1
Sunstroke	1
Tetanus—Idiopathic	1
Tetanus—Traumatic	1
Trismus Nascentium	2

ORDER 2—*Circulatory.*

Angina Pectoris	1
Embolism	2
Endocarditis	4
Heart—Organic disease	9
Heart—Valvular disease	12
Heart—Paralysis	2
Pericarditis	3

ORDER 3—*Respiratory.*

Asthma	3
Bronchitis	11
" Capillary	6
Congestion of Lungs	11
Empyema	1
Laryngitis	1
Pleuritis	1
Pneumonia	25
Pneumonia—Broncho	2
Pneumonia—Pleuro	4

ORDER 4—*Digestive.*

Abscess—Liver	1
Atrophy—Liver	1
Cirrhosis—Liver	3
Enteritis	24
Fibroid Growth of Pylorus	1
Gastritis	11
Hepatitis	4
Hypertrophy—Liver	1
Intussusception	2
Icterus	1
Peritonitis	9
Stricture—Intestine	1
Typhlitis	1
Ulceration of Bowels	2

ORDER 5—*Urinary.*

Bright's Disease	13
Cystitis	2
Nephritis	7

ORDER 6—*Generative.*

Metritis	1
Uterine Tumor—Fibroid	1
" " Malignant	2

ORDER 8—*Locomotory, Integumentary.*

Abscess	1
Eczema	1
Pemphigus	1
Ulcer—Throat	3

DEVELOPMENTAL.

ORDER 1—*Children.*

Atelectasis Pulmonum	1
Cyanosis	2
Congenital Deformity	2
" Tumor, Umbilicus	1
Dentition	3
Sclerema	1
Tedious Birth	1

ORDER 2—*Women.*

Abortion	2
Childbirth	1
Hemorrhage, Post-Partum	1
Puerperal Peritonitis	2

ORDER 3—*Old Age.*

Debility—Senile	14

ORDER 4—*Nutrition.*

Asthenia	10

VIOLENCE.

ORDER 1—*Accident.*

Crushed	2
Drowning	13
Gunshot Wound	1
Fracture of Skull	2
Run over by Wagon	1
Scalding	1
Shock from R R Accident	4
" " Street Car "	1
" " Surg. Operation	2
Strangulation	1
Wound by fall	4

ORDER 2—*Homicide.*

Murder	2
Manslaughter	1

ORDER 3—*Suicide.*

Gunshot	3
Hanging	1
Poison	1
Poisoning—Laudanum	1
Unknown	5
Total Deaths	995

DEATHS FROM ZYMOTIC DISEASES, PHTHISIS PULMONALIS AND ACUTE LUNG DISEASES, BY WARDS.

WARDS.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Public Institut'ns	Total
Small Pox					1															1
Measles					1	1		1	1					1	1					6
Scarlatina				1	4	4	3	7				1	1	8			1			30
Diphtheria		1		1		5	5			1	1	3	4	14	5	5	4			52
Croup		1			4	4	1	2				2	2	3	2	1	1			23
Whooping Cough			1		1			2		1	1		1							7
Fever—Typhus								1												1
" Typhoid		1	1	2	4	2		1					1	3	2	1	1		2	21
" Cerebro-spinal					1		2	1												4
" Malarial							1	1					2	2						6
Diarrhœal Diseases	2	12	2	10	34	32	15	19	2	9	5	3	5	48	14	7	15	6	2	242
Other Zymotic Diseases	1	1	2	2	4	1		4	1		1	2		4	3	1	2	2	6	37
Totals	3	16	6	16	54	49	27	42	4	11	8	11	16	83	27	15	24	8	10	430
Phthisis Pulmonalis	2	3	3	5	8	3	4	5	3	1	1	3	5	3	5	4	1		9	68
Acute Lung Diseases	1	1		1	8	6	5	2	2	2	3	1		9	3	2	2	2	1	51

WARDS.

Wards.	Population.	Density Per Acre.	Deaths under 5 yrs. of age.	Total Deaths in Ward	Deaths in 1,000 of Population.
1	14,765	30.78	3	9	....
2	20,099	51 00	19	30	1.49
3	16,798	38.31	7	18	1.67
4	28,102	26.26	21	43	1.53
5	47,500	16 60	72	106	2.23
6	40,890	9.78	71	99	2.42
7	37,457	26.69	43	70	1.87
8	37,146	57 68	53	77	2.71
9	17,477	60.35	6	17	0.97
10	15,754	60.61	15	23	1.46
11	22,364	38 95	16	28	1 25
12	27,914	12 59	14	27	0.96
13	20,857	14.58	22	36	1.72
14	56,531	18.37	128	164	2 90
15	28.863	33.29	36	57	1.97
16	23,771	44.52	28	42	1.76
17	24,676	64.42	35	48	1.94
18	22,311	40.33	11	19	0 85
Public Institutions			7	41	.....
By violence			7	40	.....
Unknown			.....	1	.....
Total				995	

AGES.

Under 5 years	614	From 4 to 5 years	22	From 40 to 50 years	53	From 90 to 100 years	1
Under 1 year	363	" 5 to 10 "	47	" 50 to 60 "	47	100 years and upwards	0
From 1 to 2 years	148	" 10 to 20 "	41	" 60 to 70 "	31	Unknown	3
" 2 to 3 "	58	" 20 to 30 "	62	" 70 to 80 "	22		
" 3 to 4 "	23	" 30 to 40 "	68	" 80 to 90 "	6	Total	995

COMPARATIVE MONTHLY MORTALITY.—August, 1878, 814; August, 1879 1,002; July, 1880, 1,327; August, 1880, 995.

Premature Births..... 10 Still Births.....47

1.977 deaths in 1,000. Annual rate, per 1,000, 23.72.

Chicago Medical Review

PUBLISHED ON THE FIFTH AND TWENTIETH OF THE MONTH.

E. C. DUDLEY, EDITOR.

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CHANDLER & ENGELHARD, Publishers

BUSINESS OFFICE, 60 WABASH AVE. EDITORIAL OFFICE, 70 MONROE ST.

VOL. II. NO. 7 CHICAGO, OCTOBER 5, 1880. $2.00 A YEAR.

A SUBSTITUTE FOR ALCOHOL IN TINCTURES.—The London Temperance Hospital reports contain some facts of exceptional interest and importance relative to alcohol as a therapeutic necessity, either in the form of liquors, or in combination with other medicines. This institution entirely excludes the use of alcohol as a beverage, and in the composition of tinctures, and under all other circumstances, except upon the physician's express order. In the composition of tinctures the institution employs glycerine as a substitute, the preservative qualities of which are said to be superior to those of alcohol, and it is claimed to contribute more satisfactorily to uniformity in strength. This subject is one which calls for careful experiment on the part of the pharmacist, and for conscientious trial by the physician. It is clear that the cases may be frequent in which the strength and quality of the glycerine tincture being reliable, the glycerine itself, in virtue of its nutritive qualities, would prove useful, nor is it difficult to imagine instances in which alcohol may be so contraindicated as to render its absence from the tincture a matter of no small importance. It seems that this London Temperance Hospital uses absolutely no alcohol, although by its rule it is permitted upon a physician's prescription, although its patients presumably differ in no respect from those of other hospitals. This fact indicates a certain bias of those in charge, which may affect their judgment in the rendering of a report, which seems to imply a belief on their part, that the agent is entirely unnecessary. The profession will be slow in accepting the proposition that alcohol has no therapeutic value peculiar to itself, and it will be just as slow in accepting the opinions, unless better supported, of men whose observations have perhaps been blinded and biased by this belief. It is hoped that the influence of this institution may result in curbing the zeal of those members of the profession who have the inclination to abuse a very useful and very reliable remedy.

ACCURACY IN THERMOMETERS.—By recommendation from the Winchester Observatory, a bureau has been established at Yale College with the practical view of accurate verification of these instruments. Any person may send thermometers to this institution for the purpose of having them compared with the standard thermometer, and any variation from the accurate standard will be recorded. For the purpose of defraying the expense of these comparisons, the following scale of charges has been adopted for this verification: For standard meteorological thermometers, one dollar; for ordinary meteorological thermometers, fifty cents; for ordinary maximum thermometers,

seventy-five cents; for ordinary minimum thermometers, seventy-five cents; for clinical thermometers, fifty cents. In case more than eight instruments of one kind are submitted at the same time, twenty per cent. will be deducted from these charges. Clinical thermometers, in numbers of two dozen or more, will be verified for four dollars a dozen. For thermometers of exceptional pattern, the charge will vary according to the character of each instrument. Communications relative to this subject may be addressed to Leonard Waldo, New Haven, Conn. In view of the frequent mistakes in estimating temperature of patients with inaccurate instruments, no physician should hesitate, in the purchase of a thermometer, to demand one which has been carefully verified, or object to the slight difference in cost which this necessitates.

Tonic Blepharo-Spasm.—The remarkable cure of a case, is reported by Dr. F. C. Hotz, in the current number of Knapp's Archives. A young girl had inflammation of the eyes a year ago, which, according to the description, was probably phlyctenular keratitis, particularly severe in the right eye, and lasting three months. Five months ago she had again inflammatory trouble, called at that time, erysipelas of the eyelids. When the swelling and redness of the lids had passed off, the girl was not able to open the right eye. This state was due to a strong tetanic contraction of the upper part of the orbicularis muscle, drawing the eyebrow downward until it covered the upper lid. When the brow was raised by the finger the patient could open the eye easily. The lid portion of the orbicularis muscle was evidently not contracted. Electricity had no effect upon the spasm. There was hypermetropia and some injection of the ocular conjunctiva, with several superficial opacities in the cornea. Atropine did not remove the spasm. Remembering a similar case published by Zehender, the author penciled tincture of iodine into the region of the right brow. The effect was immediate; the muscle relaxed, the brow recovered its natural position, and the eye could be opened. The following day the lower lid of the right eye was inverted, evidently by spasm of the corresponding portion of the orbicularis muscle. The application of iodine to the skin of the lower lid removed the trouble permanently.

The International Medical Congress of 1881 will be held in London, Aug. 3 to 9, inclusive. The meetings will be chiefly held in the University of London, and in Burlington House. The Congress will be presided over by Sir James Paget. The work of the Congress will be carried on in fifteen sections, which will consider the following subjects, and be presided over as follows: I. Anatomy, Professor Fowler. II. Physiology, Professor Michael Foster. III. Pathology and Morbid Anatomy, Dr. Samuel Wilks. IV. Medicine, Sir Wm. Gull. V. Surgery, John Eric Ericksen, Esq. VI. Obstetric Medicine and Surgery, Dr. McClintock, of Dublin. VII. Diseases of Children, Dr. West. VIII. Mental Diseases, Dr. Lockhart Robertson. IX. Ophthalmology, William Bowman, Esq. X. Otology, William B. Dalby, Esq. XI. Dermatology, Erasmus Wilson, Esq. XII. Diseases of the Teeth, Edwin Sanders, Esq. XIII. State Medicine, John Simon, Esq. XIV. Military Surgery and Medicine, Surgeon-General Professor Longmore. XV. Materia Medica and Pharmacology, Professor T. R. Fraser, M.D. Papers may be read in English, French, or German, and their authors are requested to intimate their intentions before the end of March, 1881, and to send an abstract of their papers before May 31, to Wm. MacCormac, Esq., Honorary Secretary-General 13 Harley St., London, W.

The Pressure in the Labyrinth of the Ear has heretofore been supposed to rise whenever, on account of closure of the eustachian tube, the air is rarified in the cavity of the tympanum, and the membrana tympani pressed inward by the force of the atmosphere. Recent investigations, however, by Bezold (Archiv für Ohrenheilkunde, Band 16, page 1), show this not to be the case.

The experiments could, of course, be conducted only on the cadaver, but the physical conditions were the same as during life. Through tubes inserted into the meatus and into the eustachian orifice, the air could be forced to move the membrana tympani either outward or inward. The pressure in the labyrinth was measured by means of a delicate glass manometer inserted into the superior semicircular canal. It was thus learned that an increase of pressure inside of the tympanic cavity raised the intra-labyrinthine tension, the traction exerted by the membrana tympani through the chain of ossicles being more than balanced by the pressure on the fenestra rotunda. Conversely if the air was rarified in the cavity of the drum, as is the case on closure of the eustachian tube during life, the pressure in the labyrinth was diminished, notwithstanding the force which the retracted membrana tympani exerts upon the stapes and the membrana ovalis. Hence the old view, that persistent closure of the eustachian tube leads to atrophy of the nerve terminations by reason of the increased pressure in the labyrinth, loses its basis. A further interesting result was the observation that the positive, i. e., the inward movement of the membrana tympani and of the ossicles is much less extensive than the negative or outward movement of these parts when set in motion by external force. Section of the tensor tympani muscles increases the extent of the outward movement, while division of the stapedius muscle permits a larger inward excursion.

Quinine in Threatening Glaucoma is discussed at some length by Prof. Adamük in the Centralbl. f. Augenhlkd. (Aug., 1880). In previous experiments he had found that this alkaloid reduces the intraocular tension, and had hence suggested its use in glaucoma, where the most striking symptom is the hardness of the eyeball. He claims to have employed it in his practice in many instances, removing thereby the prodromata of glaucoma. In the present paper, however, he refers mainly to a case observed by Prof. Imanoff, in which the disease had been impending for several years. A lady suffered for several years from ocular pain and blurring of sight in attacks, which usually came on by spending the evening out of the house. These symptoms, strongly indicative of glaucoma, were relieved, however, each time by two doses of the drug of six grains each taken during the evening. Finally an acute attack of glaucoma occurred which necessitated iridectomy. In a subsequent note Dr. Cohn refers to his experience with quinine in this affection, and fully concurs with the above author.

How Arsenic Poisons.—Most persons who hold any theory concerning the toxic action of arsenic, still believe the doctrine first propounded by Liebig. Arsenious acid according to this theory, has a great affinity for albuminous substances, and tends to form with them solid compounds. In other words the arsenic coagulates the soluble albumen. In this condition it cannot take part in the vital functions, and hence these functions cease. In this way the so-called corrosive action of arsenic on the coats of the stomach was explained, although it is well-known that arsenious oxide has at most only a feeble, caustic action. This theory, which was originally propounded to explain the poisonous action of both arsenious oxide and corrosive sublimate, is wholly false, as far as the former of these is concerned. By experiment it is found that solutions of albumen are not coagulated when treated with arsenious compounds, as they are when treated with corrosive sublimate. In fact, arsenious acid does not have a precipitating effect on any of the liquids of the body, stronger than that of carbonic acid, and yet carbonic acid is not poisonous. Liebig himself, later, saw the fallacy of his theory, and renounced it, without, however, substituting another in its place. The fact that arsenical poisoning, with the usual stomach symptoms, could be produced by dropping arsenical compounds into the eye without hurting the eye itself, was alone fatal to the early Liebigian theory. Late investigations, carried on by Binz and Schulz, (Archiv für Exper. Path. and Pharma.), have developed a new and much more rational

theory. Post mortem investigations have shown that those tissues which specially come in contact with the oxygen of the blood, and utilize it, are those which suffer most in arsenical poisoning. This is especially true of the glandular protoplasm. The neutral salts of arsenic acid are even more poisonous than the corresponding salts of arsenious acid. By the tissues of the body, arsenious acid is oxidized to arsenic acid, and arsenic acid is also reduced to arsenious acid. Any kind of albumen will affect the latter process, while the former is brought about by the living albumen of animals and plants only. These facts were proved by experiments. Arsenic acid was reduced, when treated at the temperature of the body, with egg albumen and the fibrin of warm blooded animals. Fresh brain substance had the same effeet. The tissues of the pancreas of the liver, and the undecomposed protoplasm of plants, not only reduced arsenic to arsenious acid, but also produced the opposite effect. As a result of a long series of experiments, it is concluded that the destructive effects of arsenical compounds on the system are due to the violent agitation imparted by them to the oxygen atoms of the albumen molecules. It is this molecular shock which produces such havoc in the tissues, and this shock is the result of the unnatural activity of the oxygen atoms alternately oxidizing and reducing the arsenical salts. Nitrogen compounds act much in the same way. Indeed the similarity between nitrogen and arsenic extends to many particulars. For instance, nitric oxide is extremely poisonous. It takes oxygen from the tissues, and is converted into hyponitric acid. This latter is a powerfully oxidizing substance. It attacks other tissues, giving up its oxygen and becoming reduced again to nitric oxide. This theory is certainly very ingenious, and the evidence supporting it is good. The authors, indeed, appear to have made out their case. At least the theory which they advance is so far superior to any other, that we feel like accepting it, if not finally, nevertheless provisionally.

The Specific Distinctness of Disease Germs.—Letzerich, in an article accompanied by an excellent microphotographic plate, published in the Archives for Experimental Pathology and Pharmacology, insists on the specific distinctness of the different micrococci of certain infectious diseases. Thus it is stated that there is a micrococcus diphtheriticus, a micr. typhi-abdominalis, a micr. influenzæ and a micr. pneumoniæ infect. and that the micrococcus of one of these varieties will never produce any other disease than the one after which it is named. His criterion of their distinctness is their manner of grouping in serial chains; thus the chains are slender and short in the diphtheritic micrococcus, thick and long in the species found in the sputa of infectious pneumonia, intermediate in character in the germ of typhoid fever, and imperfect in the "monadine," as Cohn has termed the micrococcus of influenza. We have seen, or it may be better at this distance from the time when we made such observations to say that we believe we have seen pictures, varying like those shown in Letzerich's photographs, in stagnant water containing decomposing substances. While withholding all comment upon the intrinsic value of the finer discriminations of alleged different micro-organisms, attempted by such eminent authorities as Letzerich, Pasteur, Cohn and Klebs, we would, in face of the unreserved acceptation of their results by the vast majority of our colleagues, call the attention of the profession at large to the fact that the whole subject of germ etiology is still in an experimental stage.

To Terminate the Chloroform Narcosis.—A peculiar device is mentioned by Schirmer in the February number of the Centralblatt f. Augenheilkunde. He claims to have used it in his clinic for many years and often succeeded in producing inspiratory movements when other means failed. He also employed it to induce rapid recovery, for instance in strabismus operations, in order to test the result. The method consists in irritating the nasal mucous membrane. It has long been known, at least to physiologists, that the fifth nerve retains its sensibility longer than any other part in narcosis, and

that reflexes may be induced through this nerve when other irritations fail. Schirmer uses simply a rolled piece of paper, which he turns in the nose. In dangerous cases he dips the paper into ammonia.

Life Insurance.—The North American Mutual Benefit Association has arranged a department expressly and exclusively for the benefit of physicians, upon a plan which seems practical and safe. The department is placed under the immediate control of a committee of Chicago physicians, which consists of Drs. J. S. Jewell, R. G. Bogue, William J. Maynard, James H. Etheridge and T. D. Fitch. This association has adopted plans which are heartily endorsed by all practical thinkers, as follows: I. The membership in any one class is limited to five hundred. II. The amount of the certificate (or policy), will be $2,500. III. The membership fee (which is the only assessment the first year, unless a death occurs), will be $5.00. IV. The annual assessment for expenses for keeping up the department is limited to $2.00. V. The assessment upon the members for a death loss will be $5.00 each, and not to be made until a death occurs. VI. No assessment will be made for membership fee until one hundred shall have joined, thus insuring at once the sum of $500 to the family of a deceased member, provided a sudden death should occur within a few days after the department is completed. VII. Whenever a death occurs in the department, the vacancy will at once be filled with a new member, whose age will not exceed thirty-five years, by which plan we not only keep down and maintain an average death loss, but hold the expense of carrying a policy, at a merely nominal sum per annum. VIII. Every member must produce a medical certificate of good health, before he will be accepted by the association. IX. No one will be received into the association as a member whose age exceeds fifty-eight. X. Special pains will be taken to secure members whose characters are above reproach. XI. A report, every 30 days, will be sent to the chairman of the prudential committee, giving names and place of residence of new members as fast as they join, until the department is full. XII. Whenever it becomes necessary to make an assessment for a death loss, the members will be provided with a blank remittance sheet and an envelope, in which to enclose the money, direct to the Northwestern National Bank, which amounts, when all collected, cannot be withdrawn without the signatures of the chairman of the committee and the treasurer of this association. Misappropriation of the benefit fund, upon this plan, is simply an impossibility. Communications may be addressed to W. G. Farrar, Secretary, Room 23 Howland Block, Chicago.

Dr. William A. Byrd, of Quincy, Illinois, informs us that he believes the usual explanations which have been given for the persistent divergence of the anterior and posterior flaps, in laceration of the cervix, do not sufficiently account for the facts. In his opinion the swinging of the body of the uterus forward and backward on a point about the utero-vaginal attachment as a fulcrum, gives to the posterior lip of the lacerated cervix, as it catches on the posterior wall of the vagina, and crowds backward into the posterior vaginal cul-de-sac, a tendency to still greater backward rolling every time the fundus is carried backward by a full bladder or empty rectum. The anterior flap, in like manner, with a tendency to crowd forward in the axis of the vagina, has this tendency increased every time the rectum is distended, or the bladder collapsed. The idea is undoubtedly sound.

A New Operation in Prolapsus of the Rectum has been devised by Professor Kehrer, of Giessen, an account of which we find in the Deutsche medicinische Wochenschrift, No. 33, 1880. Dissatisfied with the uncertainty of the present methods, the author has based an operation on a principle which he describes as follows: If a rubber ring has been stretched too far, its size may be again reduced by eliminating a piece of the ring, by a knot. He compares the sphincter of the anus to such a ring, and proceeds to shorten it on the same plan. Opening the anus with a small Sims' speculum, he

removes a slip of mucous membrane, preferably from the posterior side. This slip has the shape of a triangle, the apex of which is directed upwards, the base being the line where the mucous membrane and skin meet. On exerting traction with a tenaculum from the center of the denuded portion of the sphincter, outward, the exposed portion of the muscle folds, and the ring is thereby shortened just so much. Sutures are now applied to keep the folded surfaces in apposition, and are only removed after union has occurred. But two cases are reported by the author; these, however, with good success. The operation was performed with antiseptic precautions, thorough irrigation with carbolic acid, and insertion of a plug of cotton saturated with a ten per cent. solution of carbolic acid and glycerine. The wound healed by first intention.

Peptonized Foods would often find an advantageous use if they could be of an appetizing taste. The trouble has been that when bread, milk or flesh has been treated with pepsin and an acid, and kept at a temperature suitable to artificial digestion, the process has destroyed and made repulsive their otherwise pleasant taste and odor. The bad taste of these digestive foods is not found in the peptones themselves, which, when pure, are tasteless and odorless, but in the production of by-products, such as volatile acids whose formation is proportional to the extent of the digestion. The most unpleasant of all is the bitter taste which is characteristic of gastric digestion. The same unpleasantness accompanies the pancreatic digestion in its final periods but not with so much intensity. These objections can be avoided by separating the peptones from the undissolved mass by repeated precipitation with absolute alcohol. But this process is too costly and laborious to come into general use. Roberts, in "New Remedies," proposes certain modifications of the ordinary processes, by which many of the unpleasant consequences mentioned above can be avoided. By his method of peptonizing milk, 600 g. of milk are diluted with half as much water, and treated in a beaker glass with a teaspoonful of pancreatic juice. One and a half grammes of sodium bicarbonate are added and the whole heated to 120° F. The mixture is kept at 110° F. until the end of the experiment. In about ten minutes the milk grows thick and shows an incipient coagulation. Soon after this, however, the coagulum gradually dissolves. In the course of half an hour the mixture is as liquid as at the beginning and has a yellow tinge. The operation is ended in about two and one-half hours. The author, however, advises to stop the process when about four-fifths of the casein is changed into peptone, since such a product is equally good for the patient, and has not the bitter taste of the finished substance. In peptonizing milk for the sick, care must be taken finally to evaporate to about three-fourths of the original volume. The boiling should take place after the artificial digestion has lasted for about an hour. Where a thermometer is not to be had the following process is recommended: One-half litre of cold milk is mixed with one-fourth litre of well boiled, still hot, thin starch paste. Two teaspoonfuls each of pancreatic juice and a saturated solution of sodium bicarbonate are added. Place the vessel in a warm place for an hour and then evaporate quickly to the required thickness. This preparation is very similar to "Leibig's food for children."

Laceration of the Cervix a Cause of Post Partum Hæmorrhage.—Dr. N. B. Crawford, of Eureka, Illinois, informs us that he has rarely observed post partum hæmorrhage of venous blood, such as would flow from the uterine sinuses, and that in his observations the hæmorrhage has generally been arterial. This leads him by inference to the differential diagnosis between post partum hæmorrhage from the venous sinuses, and post partum hæmorrhage from the ruptured arteries surrounding the cervix in laceration of the cervix. He states that he has repeatedly noted very profuse arterial post partum arterial hæmorrhage in cases which subsequently proved to be extensive lacerations of the cervix. The distinction is undoubtedly a sound one.

Carbonic Acid (Dioxide) in the Air.—Many late researches have been made on the variations of CO_2 in the air, and as a result our ideas on this subject have undergone considerable change. Although the average amount of this substance in the air is only about three parts in a thousand, nevertheless it plays an important part in animal and vegetable life. The old idea that CO_2 exerted a toxic effect when present in excess in respired air is no longer tenable. The poisonous effects which have been ascribed so often to this agent, belong generally to the other member of the family, the monoxide or CO. It has often been a matter of wonder that the atmospheric content of CO_2 is not enormously increased in and near large cities, where the processes of respiration and combustion throw immense quantities of it into the air, but in such localities the excess is only slight. The principle of diffusion and the winds evidently explain the fact. In addition to these agents the waters of the ocean have lately been claimed as the chief regulator of the quantity of carbonic acid in the air. Schlösing in Comptes Rendus has given the results of a number of determinations of the CO_2 in sea water, which show that the amount of it is quite constant. One litre of sea water contains (mean) 98.3 milligrammes of free carbonic anhydride, and a quantity of carbonates which are equivalent to 99.3 milligrammes of sulphuric anhydride. The ratio of the CO_2 to the bases is 4.47 : 2.48. From this it follows that the greater part is combined as di-carbonates. The author has also shown that pure water in contact with earthy carbonates and an atmosphere containing CO_2 dissolves a certain amount of di-carbonates, which increases in proportion to the carbonic acid in the air. If a neutral carbonate of sodium, calcium or magnesium be added to the water, it causes a variation in the amount of the dissolved carbonate, but finally an amount is dissolved which depends upon the amount of CO_2 present in the atmosphere. Such a condition is found in the sea water, which for millions of years has been in contact with the earthy carbonates of the bottom, coasts and river mouths. But an absolute equilibrium cannot be reached on account of the movements of the sea and air. Thus when the content of CO_2 is in the air is smaller, the sea water gives off this gas, on the other hand when the air contains an excess the sea water absorbs a part of it. It is supposed that if the waters of the sea were spread evenly over the whole surface of the earth they would cover it to a depth of 1000 metres. The weight of carbonic anhydride in a prism of this height, and one metre square would be 98.3 kilogrammes. The half of this amount is, since it exists either free or combined as di-carbonates, available for regulating the content of the gas in the air. If we suppose our atmosphere to have a homogeneous structure, and to contain three parts in a thousand of CO_2 a vertical prism of one square metre base, and extending to the upper limit of the atmosphere, would contain 4.7 kilos CO_2. It is thus seen that the sea has a reserve of CO_2 which it could give up, of more than ten times the total amount contained in the air. It is probable that the sea also exerts a regulating effect on the ammonia contents of the air, and thus the chief sources of plant life and growth have their origin in the waters of the ocean.

A Highly Moral Community.—The Chicago Times is responsible for the statement that a school teacher at the village of Summit, near Chicago, was recently dismissed by his board of trustees, on account of his possession and perusal of Gray's anatomy. A young woman seeing the volume lying on a piano at his boarding place, examined it sufficiently to satisfy herself that it was an obscene work, the fact quickly reached the board of trustees, and the result was the teacher's prompt dismissal.

Deaths from Yellow Fever in Havana number 282 for July. During the same month the mortality in that city amounts to 1017. The population is 195,437. This is a monthly mortality of over fifty-two one-hundredths of one per cent. The average mortality in this city for the same month, during the past three years has been about one-half as large.

Food and Divorce.—Dr. Ephraim Cutter, of Boston, in the Therapeutic Gazette for August, has a new theory of the cause of the frequency of divorce proceedings in our courts. Dr. Nathan Allen had queried whether this might not be due to the increased nervousness that is asserted to exist among our people at the present time. Dr. Cutter, admitting this, sees the cause for the nervous tendencies in the food we eat, and especially in the staple article of bread; "flour," he says, "in being made white loses three-fourths of the peripheral mineral elements. In other words, three-fourths of the nerve-food is withdrawn from the most prominent article of diet used by married couples who seek divorce." Married people, it appears, need more phosphorus than single individuals, so that reproduction may be "less of an abnormal and more of a physiological process." Such irrational combinations of supposed causes and effects, as shine through this so-called new theory of Dr. Cutter contrast strikingly with the grade of work which a man of his reputation ought to turn out.

Salicylate of Quinine, according to New Remedies, seems to be increasing in favor. Dr. A. Hewan states that while toxic effects, more or less serious, result from the administration of salicylic acid, and salicylate of sodium, in doses thought necessary to reduce the temperature, no injurious consequences whatever have hitherto followed the free use of salicylate of quinine, given even in its full dose of three grains, while greater benefit has been derived from it than from salicylate of sodium or salicylic acid.

Maine Law.—The Chicago Times says: The inhabitants of Maine are very carefully protected from doctors. Among the legislative curiosities of the State, is a law providing that no man shall practice medicine in Maine without having first practiced dissection. This is supplemented by a law providing that no bodies shall be dissected excepting those of executed criminals and the door is finally locked by another law which prohibits capital punishment.

Influence of Aortic Aneurism on the Cerebral Circulation.—Among the accidents to which subjects suffering from aneurism of the aortic arch are subject, such as involve the cerebral functions, are not rare, though but little attention has been paid to them. Two cases of this nature were recently autopsied by Frankel, who reports his results in the Centralblatt. In one case, an apoplectiform attack, with aphasia and left oculo-motor palsy was found to have been caused by a complete obliteration of the left common and left internal carotid arteries by a clot. Inasmuch as the former trunk was so much compressed at its origin, by the aneurismal tumor, as to be impervious, the clot must have been formed through the action of the collateral circulation. In the other case, gradual obliteration of the left carotids took place by thrombotic occlusion, and death occurred after a series of apoplectiform attacks, the patient having ultimately become demented. On the autopsy, multiple foci of softening were found in the left cerebral hemisphere.

The American Academy of Medicine held its fifth annual meeting, September 28 and 29, in Providence, R. I., President Frederick D. Lente in the chair. The following officers were elected: President, E. T. Caswell, M.D., Providence, R. I.; First Vice-President, Henry O. March, M.D., Cambridge, Mass.; Treasurer, Richard J. Dunglison, M.D., Philadelphia; Secretary, Charles McIntyre, M.D., Easton, Pa.

Eucalyptus in the Treatment of Diphtheria.—Dr. Mester (Berliner klinische Wochenschrift) employs the spray of eucalyptus in pharyngeal diphtheria. His formula is as follows: Essential oil of eucalyptus leaves, five parts; pure alcohol twenty-five parts, water one hundred and seventy parts. Shake before using. Dr. Mester claims excellent results.

Pediculophobia.—Dr. John Morris, Maryland Medical Journal, August 15, calls attention to a peculiar symptom of mental trouble, closely allied to that described by

Hammond, under the name mysophobia. It consists in the constant delusion of the patient that he or she is infested with vermin, generally of the various species of pediculi, hence the name he gives it of "pediculophobia." It is a persistent exaggeration of the sensation often experienced by dispensary physicians of active imagination, who have not yet become hardened to some of the phases of charity practice. Dr. Morris thinks it a serious symptom, and that recovery is rare, the cases frequently passing on into hopeless insanity. For treatment he usually amuses the patient with careful examinations, baths, and detergent washes, but thinks internal use of bromides and tonics, and attention to the condition of the bowels are also advisable.

Local.—Rush Medical College has matriculated 437 aspirants for medical honors this year.

Dr. S. V. Clevenger has been appointed to fill the vacancy at the South Side Dispensary, occasioned by Dr. Mercer's resignation

Two operations for excision of the hip-joint, and one for excision of the knee, were made at Cook County Hospital during the last week in September.

Dr. J. S. Jewell will read a paper before the West Chicago Medical Society, October 11, on Practical Observations on the Management of Nervous Diseases.

The opening exercises of Rush Medical College took place Tuesday evening, Sept. 28. Dr. John E. Owens delivered the opening address before a large and appreciative audience.

Mr. Paton, chemist to the health department, is at present engaged in the analysis of sugars and syrups. The results of his investigations will probably be published in about two weeks.

Drs. Verity and Gudden took their places as house physician and house surgeon, October 1, in place of Drs. Murphy and Freer, whose term of office expired at that date. The junior house physician and surgeon are Drs. Kendall and Meecher.

During the past three weeks a notable increase in the number of deaths from malignant diphtheria in this city has been observed. The deaths have averaged about twenty a week, and a majority of these have occurred in the fourteenth, sixteenth and fifth wards.

At the West Chicago Medical Society, Sept. 27, Dr. Norman Bridge presented a statistical report of seventy-one cases of typhoid fever which occurred during the six weeks previous. It is to be regretted that so small a proportion of the society was present.

August 20, at the county hospital, hip-joint excision was performed upon Eddie Prout, aged eight years. Sept. 29, less than six weeks ofter the operation, the little patient was up and going about the ward on crutches. This is, we believe, the most rapid recovery from this operation yet recorded.

Chicago Medical College opens this year with the usual number of students, and with gratifying evidences of a higher standard of preliminary qualifications among those registered, than has ever been the case in previous years. Out of the whole number of students registered, there is scarcely one who does not furnish documentary or other satisfactory evidence of a college, or higher academic education. We think this can hardly be said of many other medical institutions in this country. The collegiate year opened with an address by Professor R. L. Rea, Sept. 28.

Pilocarpine in Asthma.—According to the British Medical Journal, pilocarpine is recommended by Berkart in doses of ten drops of the two per cent. solution. Sometimes the administration of the drug is followed by serious disturbance of the heart, especially when that organ is in a condition of fatty degeneration. In such cases, atropine, one one-hundredth of a grain, more or less, gives relief.

Jewish Hospital.—Ground has been broken at the corner of Twenty-ninth street and Cottage Grove Place for the Michael Reese Hospital. By a bequest of Michael Reese, thirty-eight thousand dollars were left for the re-erection of the Chicago Jewish Hospital, and fifty thousand dollars appropriated for its maintenance.

CONTRIBUTIONS.

THE OPIUM HABIT.

A Statistical and Clinical Lecture.

BY CHARLES WARRINGTON EARLE, M.D.

Professor of diseases of children, Woman's Medical College, and physician at the Washingtonian Home, Chicago. Delivered at the College, June 25th, and read before the West Chicago Medical Society Sept. 13th, 1880.

It is nine years since I was appointed physician to the Washingtonian Home. During the first four years of that time I have no remembrance of treating systematically any cases of the opium habit; but during the last five years my attention has been directed to this subject in more than a score of cases, and during the past year hardly a month has passed without a patient being placed under my care. I found that their symptoms, in nearly every case, were similar, and several months ago I commenced to study them more closely, with the view of making some definite deductions at the appropriate time.

It is proper for me to state that the Washingtonian Home was not intended by its founders as a place for the treatment of opium inebriety, yet during these latter years certain cases have presented themselves at our doors which seemed to demand our attention, and our institution being the only one in the Northwest, we could hardly refuse them admission. We have found it very difficult to care for these individuals; they require more watching and more nurses than the alcoholic class; notwithstanding this, we have taken them from time to time, and to the majority good results have been attained.

THE OPIUM TRAFFIC.

In an article entitled "The Impending Danger,"* Dr. Mattison, of Brooklyn, states that he is assured by both dealers in the crude drug and manufacturers of the alkaloids, that the importation of opium is increasing rapidly every year, and that the supply may become insufficient for the demand. The question naturally suggesting itself is: What becomes of the vast amount yearly brought to our shores? With the intention of finding to some extent, the amount used non-medically, I have interviewed fifty druggists in various sections of the city. The questions have been in regard to: First, the number of regular opium customers; second, sex; third, nativity; fourth, age; fifth, social relations; sixth, married or single; seventh, occupation; eighth, cause assigned; ninth, kind of narcotic; tenth, quantity. The pharmaceutists, without exception, have seemed willing to aid me in my investigation, and the great majority deprecate in unmeasured terms the opium trade in all its aspects. Four of those interviewed do not sell the drug unless prescribed, and a large number express themselves as dissatisfied with this part of their business, as liable to cause trouble; and, from the fact that almost without exception, this class of customers sooner or later become irresponsible and unreliable. In order to discourage the trade, some druggists are driving from their doors those who would purchase the different opiates by asking a high price for the drug. For instance, one gentleman has ceased to sell to any by asking $1.25 per drachm for morphia, when it could be purchased for 65 to 75 cents elsewhere.

I am aware that errors, especially in two particulars, may have been made in my investigations. The druggists may not have communicated to me all the facts in their possession in regard to the number of regular customers, and I may have counted the same individual more than once. In regard to the first possible errors, I should say that the pharmaceutists have all seemed desirous to assist me and quite a number have taken great pains to look over their records in search of data. To all these gentlemen I desire, in as public manner as possible, to express my gratitude for their courtesy. In regard to the second possible error, i. e., counting the same individual more than once, I will say that great care has been exercised to include in only one enumeration any who were known to patronize more than one store, and whose description and habits have been given to me by those previously interviewed.

I certainly have no desire to exaggerate in regard to the number using this drug, and think it quite probable that my estimate may fall below that made by others.

RESULTS OF INVESTIGATION.

Inquiries were made at fifty drug stores. The three divisions of the city were visited, and localities inhabited by the different classes and nationalities were thoroughly canvassed. I was greatly surprised to find that druggists on the West Side were patronized to a greater extent (excepting a few on Clark street) than in any other part of the city. Foreign druggists (German and Scandinavian), seem to exhibit more conscientious scruples in regard to the trade than our own nationality. I learned from some of these gentlemen that in Denmark, and, if I mistake not, in Norway and Sweden, the trade is absolutely forbidden. Fifty druggists have 235 customers, or an average of nearly five to each store.

SEX.

Among the 235 habitual opium-eaters, 169

*Medical Record, p. 69, 1876.

were found to be females, a proportion of about 3 to 1. Of the 169 females, about one-third belong to that class known as prostitutes. Deducting these, we still have among those taking the different kinds of opiates, 2 females to 1 male. In one family I found the mother at the age of 65 taking one drachm of gum opium each day, and her daughter, at the age of 30, consuming two drachms of the tincture. One lady, aged 50, has taken it since she was 13 years of age. Suffering from some painful sickness during her youth, she was given, by a physician, a box of powders, on which was written "Morphia." She had the prescription repeated, and gradually found herself in the power of the seductive drug, from which, in all probability, she will never be freed.

I am acquainted with an aged couple living on Harrison street, aged respectively 70 and 75, who take a drachm of morphia each every week, when by any means whatever they can procure it. The husband has suffered from fracture, and the wife with neuralgia and rheumatism.

NATIONALITY.

Entire number of cases	235
American	160
German	7
Irish	17
Scotch	10
Colored	12
English	6
Scandinavian	5
Unknown	18

It will be noticed that it is among our own people that we find the largest number yielding easily, and in considerable numbers, to the influence of this drug. The Germans and the Irish find relief from their troubles in the anesthetic effect of beer and whisky, while the American takes a not less effective agent, but one whose effects for the time do not incapacitate the victim for business. And, in addition, I suppose it is true that it is more particularly among Americans, and the foreign class who come to be Americanized, that we find those neurasthenic people who bear pain badly, and demand relief from some source. I have always found it difficult to dissuade a certain class of ladies from taking more anodynes than I thought proper. They constantly demand to be relieved from pain.

AGE (APPROXIMATE).

Males—	
From 20 to 30 years	5
From 30 to 40 years	19
From 40 to 50 years	11
From 50 to 60 years	7
From 60 to 70 years	1
From 70 to 80 years	1
Unknown age	22
Total	66
Females—	
From 10 to 20 years	2
From 20 to 30 years	18
From 30 to 40 years	39
From 40 to 50 years	22
From 50 to 60 years	14
From 60 to 70 years	4
One-third entire number prostitutes, probably from 15 to 50	56
Unknown age	14
Total	169

It is, as will be seen, a vice of middle life, the larger number, by far, being from 30 to 40 years of age. One woman, an octoroon, commenced using it when 13 years of age. Away from her friends, she became downhearted and homesick, when an elderly lady, herself a morphia-eater, offered the young girl a powder, with the remark that it would cheer her up and cause her to forget her sorrows. This was repeated for several days, the morphia habit was established, which has clung to the woman to this day. She now takes thirteen grains of morphia in the morning and five grains in the evening, and has taken as high as sixty grains per day.

It is reported to me, although I cannot be held responsible for the statement, that a young woman, now 25 years of age, and following the occupation of prostitute, commenced to take morphia when only 5 years of age. While I cannot vouch for the truth of the above remark, I know, from my own observation, that many young children, even infants, become accustomed to and feel the stimulating effects of opiates. Not only this, but they experience the terrible depression, and have the symptoms which I always notice in an adult after the withdrawal. An infant at two weeks of age was given its first dose of soothing syrup. It took two bottles during the first month, six bottles during the second and third months, and four bottles each month during the remaining four months of its life. It died during its seventh month. During the last three months it was constantly nervous, it gradually became pale and slightly yellow, yet increased in flesh. Upon the rapid withdrawal of its morphia, which I assume to be the anodyne ingredient in its soothing syrup, it was taken with terrible diarrhœa, incessant vomiting, apparent unbearable muscular pains, prostration, and death. While a bronchitis with which the little sufferer was attacked, may have had something to do with its death, it has always seemed to me that many of its symptoms were due to the withdrawal of its customary soothing syrup. Of course the entire history of this case was not given to me until after the death of the child. With all the facts in my possession I should have stimulated the

child in every way possible, and gradually reduced the soothing syrup.

SOCIETY RELATIONS.

It is very rare to find a poor Bohemian or Swede habitually taking any kind of an opiate. It is equally rare to find a wealthy person, in the full enjoyment of his or her property, taking it. A large number of those who have formerly occupied high social standing and enjoyed wealth, but from different causes have become reduced in circumstances and position, are taking the drug. It is, however, among the middle class that we find the very great majority who are to-day our opium-eaters. There are a few exceptions, but in general I believe my statement is correct.

MARRIED OR SINGLE.

The great majority of morphia-takers either are or have been married. Many of both sexes, who have occupied this relation, are now separated, the unreliability and loss of respect, and untruthfulness, which the use of the drug usually produces, being the cause of the unhappy condition between husband and wife.

OCCUPATION.

From my notes, made while making these investigations, I take the occupation of 100 occurring at the head of the list:

Males.		*Females.*	
Iron merchant	1	Housewives	45
Newsdealer	1	Society ladies	3
Business men	5	Widow	1
Physicians	2	Sewing woman	1
Laborer	3	Servant	1
Turner	1	Washwoman	2
Druggist	1	Prostitutes	5
Bookkeeper	2	Unknown	9
Capitalist	2		
Clerk	1		
Contractor	1		
Insurance agent	1		
Book agent	1		
Railroad men	1		
Attorney	1		
Unknown	9		

It will be observed that it is in those occupying middle stations, that we find the largest number taking the drug, although among thirty-three men, two are classed as capitalists. I find also, with much regret, two of our profession, which leads me to remark that a few of the heaviest consumers of morphia are physicians and druggists. Their devotion to the seductive influences of the drug has, however, destroyed their business, and they wander around, in some instances at least, leading an aimless and abandoned life. A large proportion of the females are classed as "housewives," but they must necessarily include many widows or those abandoned by their former husbands. The small number of prostitutes numbered in the list arises from the fact that the locations where these observations were made, were among the best in the city, only a few of this class residing there.

CAUSE ASSIGNED.

In many cases it is difficult to ascertain the reason for taking the drug. The customer buys the preparation he desires and immediately takes his departure; and it is usually a delicate question to ask, "What do you take it for?" Dr. Joseph Parish says "that men take it not for social enjoyment, but for a physical necessity." With such an opinion I have no sympathy. When it is a physical necessity for men to steal and lie, and murder, and partake of alcohol to such an extent as to incapacitate themselves for work, and bring ruin on their families, then I will admit the same in regard to opium-eating. Quite a number, however, freely confess the reason for taking the drug. Eight say that it is for its stimulating and happy effect; four formerly were addicted to drink and seek quietude by taking opium; five are unhappily married; thirty-eight have had rheumatism and are now suffering from it to some extent, and an equal number assign neuralgia as the cause of their pains, for which some form of opiate is taken. Those diseases known by the incomprehensible name of "female complaints," are frequently given as the cause for taking an opiate. Previous sickness, and wounds received during the war, painful stumps after amputation, injuries to nerves, etc., etc., loss of property and position in society, are given by a few. But the great majority confess that it was first given during some disease in the course of which pain was a prominent symptom. An opiate was prescribed by the physician, and ever afterward, when suffering pain, the little powder, or laudanum, or gum opium, has become their solace. However much we may desire to avoid this grave responsibility, the truth must be confessed, that the greater number of men and women who are now completely enslaved to the different preparations of opium, received their first dose from members of our profession.

KIND OF NARCOTIC.

Morphia was used in	120	cases.
Tincture opium "	30	"
Paregoric "	5	"
McMann's elixir "	2	"
Gum opium "	50	"
Dover powders "	1	"
Unknown "	27	"
	235	

Ladies use morphia in the majority of cases, men, of the lower classes, gum opium, and a few, of both sexes, who have a desire for alcoholic stimulants, in addition to the opiate,

use the tincture, and occasionally one is found taking large doses of paregoric. An American lady, aged 50, a widow, buys of one druggist half a gallon every week. One lady takes morphia and chloral; another morphia and Dover powders; a patient, under my care at this time, has nearly destroyed herself and ruined her friends by taking morphia and chloroform.

QUANTITY.

Morphia—

21	persons	use from	1 to 3	grains	each day.
17	"	"	3 to 6	"	"
12	"	"	6 to 10	"	"
10	"	"	10 to 15	"	"
12	"	"	15 to 20	"	"
7	"	½ a drachm		"	"
6	"	1 drachm		"	"
20	"	1 bottle per week.			
5	"	2 " "			
1	"	11 bottles each month.			

Tr. Opium—

15	persons	use 1 drachm	each day.	
4	"	3 "	"	
7	"	4 "	"	
12	"	1 ounce	"	
4	"	2 "	"	
1	"	3 "	"	
1	"	4 "	"	

Gum Opium—

3	persons	use 10	grains	each day.
5	"	20	"	"
9	"	½ drachm		"
12	"	1	"	"
4	"	2	"	"
2	"	3	"	"
1	"	4	"	"

In addition to those known and recognized as opium eaters, a large number of ladies are in the habit of using from one-third to one grain of morphia daily. They have done this for years without imparting their secret to their nearest friends. It was commenced to allay some pain, and then continued for its stimulant effect. The lady I referred to as being under treatment for morphia and chloroform, took the first-named drug four years before her husband was aware of it.

MANNER AND TIME OF TAKING.

My observations do not agree with certain writers; for instance, Dr. Kane, who has recently written a book on the hypodermic method, in regarding this way of taking morphine as particularly liable to cultivate the habit:

"A physician of the present day, without a hypodermic syringe in his pocket, or close at hand, would be looked upon as would have been a physician fifty years ago, did he not own and use a lancet. There is no proceeding in medicine that has become so rapidly popular; no method of allaying pain so prompt in its action and permanent in its effect. No plan of medication that has been so carelessly used and so thoroughly abused; and no therapeutic discovery that has been so great a blessing and so great a curse to mankind, as the hypodermic injection of morphia."* In some respects I agree with this author, but in my experience the hypodermic syringe is not resorted to with the frequency that Dr. Kane has stated. But very few of the 235 cases, not more than four or five, upon which I base my article, take the drug in this manner, and only two or three of those who have been placed under my care, used the instrument.

The great bulk consumed is by the mouth, and, as regards time and frequency of dose, it varies from two to three times a day to a single large dose once in two or three days. It is a curious fact that some of the oldest opium-eaters take a large dose at intervals of from one to three days, and that an even and happy effect is experienced during all that time.

PHYSICAL EFFECTS.

In many cases the deleterious results are very long in making their appearance. Indeed, some take this drug for years and years, and seem to enjoy excellent health, and in no way can they be distinguished from those not addicted to the drug. Only a few days ago I met a gentleman on Carroll avenue who has taken morphine thirteen years, in doses of from two to fifty grains daily. He was well dressed, had a healthy color, and was in every respect as respectable looking as the majority I saw on the street. Some become fleshy, especially when commencing its use, while others emaciate. It makes one logy and sleepy, another vivacious and happy. Sooner or later, however, we find symptoms denoting disordered nutrition and enervation. The opium-eater's countenance, in the greater number of cases, betrays him. It becomes sullen, haggard, and apathetic, and the eye loses its brilliancy. All these objective symptoms are most noticeable when the habituate is deprived for even a short time of his usual opiate. We soon find the appetite impaired, and digestion poor. The bowels are habitually constipated. There is also vesical and sexual torpor. Indeed, every function of the body is performed in a sluggish manner. If, from any cause, the victim is deprived of his accustomed drug, he soon begins to have intolerable cramps in the muscular system, with involuntary twitchings. The patient by this time is usually weak and feeble. A gentleman from the central part of our state, when presented for treatment, was a perfect picture of a marasmic patient.

*Morphia Hypodermically. By Dr. Kane—preface.

MENTAL AND MORAL EFFECTS.

The man avoids society, and before he is fairly confirmed in his habit is tortured with the thought that he is becoming a victim to a habit that he can now only rid himself of by great will-power and bodily suffering. He cannot make the resolution to stop to-day, but defers it until to-morrow. The memory of the poor man is already becoming poor. He neglects his business; he falls asleep for a few moments as he rides in the car, or as conversation lags for a moment with his associates.

Equally marked, and more so, if possible, is the change in the moral sentiment of the individual. He neglects his family. He will obtain his usual proportion of opium by making promises that he knows he is unable to fulfill. He becomes cross and irritable if attempts are made to deprive him of his opiate; and, sooner or later, moral rectitude, every noble impulse, every generous thought, is swallowed up in this terrible fight to possess more and more of the narcotic, to obtain which, in almost every instance, the victim has become an inveterate prevaricator.

It is claimed by those having greater experience than myself, that the hypodermic use of morphia does not so rapidly, or in such a complete degree, gain the ascendancy over the physical condition and moral sentiments of the individual.

INTRODUCTORY LECTURE ON PHYSIOLOGY

BY H. GRADLE.

Delivered at the Chicago Medical College, September 30, 1880.

The study of physiology is too often begun from a false point of view on the part of the student. There are not few among you, I fear, who believe this study to be more ornamental than useful, who consider physiology as required rather by the examiner than by the exigencies of your subsequent career. These wrong notions I shall try to dispel before taking up the subject itself.

On comparing various treatises of medicine, you will find that some, especially of older date, are headed, "The Science and Art of Medicine." These terms seem to me unfortunately chosen. Medicine is neither an art nor a pure science. Medical men do not, like artists, require peculiar, exceptional talents, and their labor is not at all comparable to work which we, in the ordinary acceptation of the term would call artistic. Medicine, moreover, is not a pure science; it is but the application of another science, physiology. We do not speak of a civil engineer as a man of science, although his work consists but in the application of results furnished by other sciences. Similarly, the practitioner does not search for truth for its own sake, but applies at the bedside the knowledge gained by the study of physiology in its widest sense.

It may appear to you possibly that I accord to physiology an undue prominence, to the neglect of allied branches. But physiology, in its wider sense, means but the study of life, and as such, it includes pathology as well as the study of the influence of drugs. The reason why these branches are taught from another chair is but one of convenience, enforced by the vastness of the subject. But to speak of the study of the normal body, on the one hand, and of the investigation of disease on the other hand, as two separate and distinct fields of science, would be as unwise as a division of meteorology into a science of good weather and a science of bad weather. The physiologist studies but the properties of living matter, and if he watches these properties under circumstances not conducive to the welfare of the being, he encroaches upon the domain usually left to the pathologist, while if he examines the behavior of the living body in the presence of chemical substances, not normally found there, his studies are called pharmacology. In either case, however, he studies the mechanism of living bodies. Once firmly impressed with the fact that disease is merely the reaction of the body to unusual conditions, you will appreciate readily that no line can be drawn between physiology and pathology. There exist no separate laws of health and laws of disease, and the physical and chemical processes which occur in the normal body, are changed merely quantitatively in disease. Even where disease leads to appearances which seem to differ radically from the normal physiological processes, careful scrutiny will always show that the entire change is naught but an increase or a decrease of one or the other physiological factor. Let me prove this by an example, a certain grave disease, diabetes, is characterized by the appearance of sugar in the urine. The chemical tests which reveal the presence of this substance, turn out wholly negative in health. Are we to conclude hence, that this is a true perversion of the physiological play, or that new functions have appeared in the body? If we trace this sugar, however, to its source, we will find that, like all constituents of the urine, it is derived from the blood. But an analysis of blood will also show us the presence of sugar in health just as well as in disease. In the disease its production is only increased, but increased to such an extent that the excess is no longer tolerated in the system, and is removed by the drains of the body.

In teaching that physiology is the basis of rational medicine, I am aware that such is not the universal belief. Unfortunately practitioners can still be found who do not yet regard this matter in its true light, and who, claiming that medicine was practiced before physiology was studied, are willing that the two should remain separate branches of knowledge. They say that we can cure diseases the nature of which we do not understand, and that medicine must be based upon bedside observations and nothing else. Now, gentlemen, let me insist, once for all, that knowledge by itself is always welcome, no matter what its source. It is true we have learned to cure certain diseases without the least substantial idea how the cure is effected. Let the fact itself be treasured up in your memory, but never yield in the anxiety to learn the explanation. It is true that a large part of our therapeutic action is based on accumulated observation, on crude empiricism. But for observations we must depend on chance, while an experiment, which is nothing but evoked observation, is always at our command. Moreover, the knowledge based upon accidental observation, so to speak, must always be more or less indefinite. To illustrate this I need but refer you to the former history of therapeutics, with its ever changing chaos of theories, which gave rise to lines of treatment practiced to day, but thrown aside to-morrow. After all, the real benefit which patients derived from treatment in former ages was very small, and at the present day, we can safely state that on the whole, that treatment is the more successful, the rationale of which is most transparent. But you may ask how is it that we can cure at all, when we do not understand fully the nature of the disturbance. An answer to this question must be based upon the fact that the organism can, in most instances, recover by its own unaided effort from the effects of injurious causes, provided these causes are but temporary. Hence many diseases will run a definite course and then stop, a fact which, even to-day, is not recognized as fully as it should be. The organism cannot be compared to an artificial piece of machinery, of mathematical accuracy, in which the breakage of a single wheel will stop the whole. There exists in reality, a certain laxity in the play of the different organs. Almost every physiological factor may vary within liberal limits, without endangering the integrity of the organism. Moreover, most variations of physiological processes are apt to lead to a compensatory change in other parts, which ultimately corrects the disturbance. The organism, in short, possesses a recuperative power, the like of which we never encounter in organic nature, or in artificial machinery. Hence in many instances the removal of the cause of a disease suffices for the so-called cure. Reflecting on this subject you can readily understand how mere chance should lead to some valuable discoveries in treatment. Accidents having shown that certain substances produce characteristic effects upon the body, it need not surprise us that such substances were tried in diseases at hap-hazard, and did sometimes really aid the organism in its struggle against the injurious conditions producing disease. Which, however, is the more rational road to success; to trust to chance for therapeutic discoveries, or to work systematically with a determined will, in order to learn the nature of the disturbance we call disease, and to arrive at a solution of the problem of treatment?

But, gentlemen, those same conservative minds, who cannot see the true connection between physiology and medicine, may ask you to show the instances where our action has been influenced by physiological research. This task you need never shirk. It is true the influence of physiology has not yet made itself felt equally in all practical branches, nor can this be expected when we consider that physiological experimentation is but the outgrowth of modern, I might even say of the most recent times. Considering the obstacles in the way of experimental physiology, hindrances of both extrinsic and intrinsic nature, we can point out with triumph the actual benefits due to this science.

Surgery has undergone a remarkable reform within the last ten years, by recognizing that the normal course of wounds is unfavorably influenced, if we do not take care to exclude the so-called germs of putrefaction floating in the air, and covering most objects. These discoveries as regards the existence of such germs, their mode of action, and the way of destroying them, were made by various physiologists, while the practical application of these results has placed the name of Joseph Lister high in the ranks of true benefactors of mankind. Such brilliant examples of the value of physiological research, as the introduction of antiseptic surgery, are perhaps not numerous, but it is almost difficult to find any modern course of treatment which has not been the outgrowth, at least, to some extent, of physiological experimentation. In fact, the most fortunate instance of precise and unfailing therapeutic action with which we are acquainted, is based wholly on physiological studies. I refer to the adaptation of glasses to imperfect eyes, a procedure unpar-

alleled in medicine in its mathematical accuracy.

Again, in many instances, we are at a loss to which special physiological investigation we are to attribute a certain therapeutic gain, since it may have been the outgrowth, not of any one set of experiments, but of the time. Medical thought has been so enlightened by the work of physiologists, that often the study of a disease leads to a treatment which could not have been dreamt of in former days.

The study of physiology, unlike some other sciences, requires some special preliminary knowledge. In the first place we must know the structure, the mechanism of which we are to investigate. Anatomy must necessarily precede physiology. You cannot hope to comprehend the circulation, unless you are acquainted with the structure of the circulatory organs. It is not so much, however, descriptive or surgical anatomy as general anatomy, which you will require. To study the circulation, for instance, you need not know the course of every artery, or the name ot every arterial twig, but a familiarity with the structure and properties of the heart and vessels is indispensable. But let me warn you that the most thorough knowledge of anatomy is not a substitute for physiology. In the present state of our science, we fail, quite often, in tracing physiological phenomena to structural peculiarities. We are tolerably familiar, for instance, with the minute anatomy of muscle and nerve; still this knowledge has aided us as yet but little in understanding the subtle play of muscular contractility. Anatomical investigation must always precede physiological research, but with the aid of the former alone we are not able to solve any of the problems of life.

The student of physiology should be a master of chemistry. At every step in the study of living beings we encounter chemical problems. All physiological researches come down ultimately to the study of the chemical processes which constitute tissue-change. You can readily see that, without previous chemical preparation, the study of digestion, of respiration, or any kindred subject would be an unpleasant and unprofitable tax on your memory. But, while the physiologist requires chemical methods in his work it must not be supposed that the chemist, who subjects only the dead body to his analysis, can successfully grapple with physiological problems. Too often chemists have tried to convince physicians how physiological processes *might* occur, but what we want is to be shown how they actually *do* occur. The aim of the physiologist is not so much the chemistry of the dead body as the chemistry of the living tissue. No idea, however, is further from my mind than the once popular notion that there is a chemistry of life as distinguished from the chemistry of inert matter. The laws of chemistry are universal, but the conditions upon which many chemical processes depend, which occur in the body, are peculiar to the animal body. Still we have learned to imitate these conditions, at least in some instances. Years ago it was taught that organic compounds could be produced only through the influence of life. The sum total of the unknown chemical conditions existing in the body was called vitality, and but little hope was then entertained of ever penetrating into the mysteries of vitality; but since a chemist (Wöhler) first succeeded in building up an organic product, urea, out of simple inorganic substances, we have learned that many, if not all, conditions peculiar to the body may be realized outside of the body after we have only mastered their nature. The term vitality should be used at the present day only with the distinct understanding that it signifies nothing but our ignorance. It is too convenient to be dropped, but it should never be the foundation for a speculative edifice.

What I have said of chemistry applies equally to physics. Physiology has been properly defined as the chemistry and physics of living bodies. An understanding of mechanical processes like those of the circulation and of muscular contraction cannot be arrived at without familiarity with mechanics in general. You will similarly find the study of nerve-physiology very unsatisfactory unless prepared for it by a previous acquaintance with the laws of electricity. The study of physics is unfortunately one upon which too little stress is placed in the curriculum of American colleges. Yet physics alone will never give us a complete insight into physiological processes. Familiarity with anatomy and the study of the chemistry and the physics of the dead body are indispensable to physiological ends. But the only way to cultivate physiology properly is the research upon the living body itself. The anatomist alone cannot tell us what impulses this or that nerve-fibre is intended to carry; the chemist cannot predict the poisonous properties of a newly discovered substance, and the physicist is incompetent to explain the mechanism upon which the delicacy of our movements depend. Such problems can only be solved by the actual trial upon the living body. To study physiology, we must resort to vivisection.

Numerous, however, are the obstacles which are thrown in the way of the vivisector, even by some in the medical profession.

But it is a peculiar evidence of the real nature of this spirit of opposition that those are most vehement in decrying vivisection who are the least familiar with it. From the very nature of things no one can really estimate the value and importance of experimentation but the student of physiology.

The greatest fallacy urged against vivisection is the argument that since we use only lower animals we do not get an insight into the physiology of man. It is true that this argument points to a fruitful source of error, but the danger need but be recognized in order to be avoided. All scientific knowledge, every conclusion at which we arrive in every-day life, rests on the axiom that like causes produce like effects. Wherever we meet with identical conditions the same result must be predicted. Hence, in comparing physiological processes as they occur in various animals, the greatest care must be exercised to determine whether the sum total of the conditions is the same in the different species. But these conditions once fully understood and the importance of each factor recognized we arrive at a clear understanding of the phenomena. It would be rash indeed to explain the mechanism of the human brain on the basis of some experiments made on a frog. There is such a vast difference in the development of this organ in such widely different species that, at the best, the results obtained in lower animals can only serve as a guide to the study of the more complicated brain of man. But, gentlemen, if we have studied with care the mechanism of the contracting muscle of a frog, have learned that the anatomical and chemical conditions are the same in man, we can positively say that we know as much about the mechanics of human muscles as if we had made them the special object of our research. We may, indeed, find certain differences. The human muscles removed from the body will die in a few hours at the most, while the tisues of the cold-blooded animal still present evidences of life even days after their removal. But such differences we cannot alone understand when discovered, but we can even predict them on the strength of a thorough investigation.

In comparing the results of investigation, made on different animals we must clearly distinguish between immediate and secondary connections. The same injury must necessarily cause the same immediate results in different animals, but the remote consequences may vary widely according to structural or other peculiarities. Let me quote an example to prove this: The facial nerve is in all higher animals the route through which the will is exerted upon the muscles of the face. If this nerve be severed, the will can no longer command the facial muscles, hence the face is said to be paralyzed. Such a result is not rarely produced by disease in man. We can also show this experimentally on a dog, and neither man nor dog will incur any danger to life in consequence thereof. But let us perform this same experiment upon the horse and this animal will soon die from suffocation. Are we to conclude that the same injury will cause in different species unlike results which cannot be predicted from a trial upon one animal alone? Not at all. The immediate effects are the same in both cases, but some remote results may occur in one animal and not in another, on account of structural peculiarities of the former. In all instances will we find paralysis of the facial muscles, but it is only the horse whose nostrils consist of such soft tissue that they collapse unless kept open by the activity of the surrounding muscles. Were we to insert a tube, however, into the nostrils of the horse, and thus avoid the danger of want of air, our experiments would prove identical in horse, dog and man.

No, we should not be satisfied alone with our ability to explain such physiological differences between different animals, when we do meet them, but we should ever seek them purposely. One species presents often greater facilities than another, for the study of a given organ, be it that the relations of this organ are simpler in such an animal or that on the other hand the organ is better developed. Had we really the privilege of experimenting upon man himself, we could still not dispense with the frog.

The real objection to vivisections, which cannot be denied is their cruelty. But this is often exaggerated. The mental anguish which man would experience in such a position plays but an insignificant role in the case of even higher animals, while pain is not incidental to every experiment. The pain indeed due to cutting through healthy tissues is less than is usually supposed, still it would be wrong to deny or to forget, that physiological knowledge can be gained only at the expense of some suffering. The spirit of humanity should never be ignored in the zeal for truth, especially by physicians.

Some humanitarians, while admitting the necessity for original research, disprove of experimentation on living animals in the lecture-room. That I do not share this view I will show by illustrating our lectures as much as the means of our laboratory will permit, although indeed you will see but few vivisections of *conscious* animals. The gain which I seek thereby is not a slight one. There is

nothing like actual demonstration to cultivate in the student a critical spirit, nothing like real experience to emancipate the thinker from the blind faith in authority, nothing like practice of the senses to give independence to the judgment. Memory alone will not make you competent physiologists. You can not feel at home in any science until you know, not alone the results, but also the methods, by which they were obtained, until you dare to criticise those methods. By watching the experiment, and noting how striking the result, or how difficult it may be to obtain it, your mind will master the facts with a thoroughness not attainable in any other manner. If you intend to be satisfied with the remembrance of your text book, physiology will indeed be a mere ballast in your subsequent career. It is only by a judicious use of your critical spirit, by refusing to accept a statement as fact, until you are convinced that the interpretation is correct, by questioning in your own mind to what other inferences this or that experiment can lead. In short it is only on the strength of critical thought that you can rely upon physiology as the guiding star at the bedside. And by the time when all who attempt to heal will clearly recognize that the only reliable practice of medicine is but the application of physiology, the day of scientific medicine will begin to dawn.

LECTURE ON THE THERAPEUTICS OF CATARRH.

BY JAY OWENS, M.D.

Professor of Practice of Medicine and Diseases of the Throat in the St. Paul Medical College, St. Paul, Minn.

GENTLEMEN:—Having given you in my last lecture the constitutional treatment and prophylaxis of catarrh, I will now state to you, as briefly as I can, the local measures that have proved of most benefit in my hands.

You must never commence a "hap hazard" local treatment, but first determine the exact condition of the diseased membrane, and then select those remedies and means of applying them which seem most suited to the individual case. If there is congestion of the membrane you must not use those remedies which will further congest the already irritated part, but the indication now is to sooth and relieve the membrane of the extra amount of blood which it contains. On the contrary, when you have an anæmic membrane to deal with, astringents are contraindicated and only increase and prolong the trouble when used for this condition. I have found slightly stimulating applications very beneficial for this condition. A favorite prescription of mine for an anæmic membrane of the nose and pharynx is the following:

℞ Yerbæ Reumæ ..... ʒj
Aquæ Rosæ ..... ʒvij
Sig. To be thrown up behind the soft palate with a posterior nasal syringe.

This injection should be used three or four times each day, and should always be as warm as the patient can comfortably bear it. The following often proves of much service in the same class of cases:

℞ Tr. Benzoini ..... ʒss
Aquæ Bullientis ..... ʒxvj
Sig. To inhale as long as water is hot.

This is for use in an O'Leary's inhaler, and must be used not less than twice daily to prove of much benefit. Inhalations of the volatile fluid extract of eucalyptus globulus are slightly stimulating, and have proved of great value in my practice. This can be used in the inhaler in the same manner that the tincture benzoin is used; five drops of the volatile extract to the pint of boiling water will be sufficient; or a more convenient way, and one just as valuable, is to moisten the nostrils with the extract twice or thrice daily.

In cases characterized by great sensitiveness of the membrane lining the nasal cavities, inhalations of atomized fluids will relieve this condition very rapidly. In these cases I use tr. hyoscyamus and camphorated tr. of opium, equal parts; of this mixture I put one dram in the atomizer cup and fill the cup with water. I use the common steam atomizer, with a nose piece substituted for the mouth piece commonly used, or the following used as an injection with the post nasal syringe, or anterior nasal bulb syringe: Bromide of potassa, one dram to one ounce of rose water. This can be used two or three times a day and will soon relieve the hypersensitiveness so much that astringent injections can be tolerated.

The sensations produced by the secretions clinging to the membrane of the pharynx and the efforts required to dislodge the little collections of mucus often cause nausea and vomiting. This can be relieved by the following gargle if used every two to three hours for one or two days:

℞ Potass. Bromid. ..... ʒj
Syr. Aurant. Corticis ..... ʒj
Aquæ. Dest. ..... ʒvij

This gargle not only loosens the secretions from their close adhesion to the membrane and causes a greater flow of a thin, serous secretion, which is easily expectorated, but it produces a partial anæsthesia of the mucous membrane with which it comes in contact, and thus relieves the patient of the distressing nausea. It is a frequent thing to meet patients who habitu-

ally vomit the contents of the stomach after each morning meal. Whenever a long and relaxed, or hypertrophied uvula is the cause of the nausea, you must amputate one-half or two-thirds of this organ. You need have no fear whatever in performing this operation; it is very simple and easily performed, and no bad effects follow. The voice is often rendered more clear and distinct. In two cases of hypertrophied uvula occurring in public speakers, they have expressed themselves as being very much pleased at the improvement in their voices after the operation had been performed. All enlarged or relaxed uvula will often prolong a catarrh indefinitely and render all methods of treatment abortive. The same statement can be made with regard to enlarged tonsils, and their removal is followed by an improvement in the catarrhal condition in many cases, even when there has been no special attention paid to the condition of the mucous membrane.

In those cases where the pathological condition is limited to the mucous membrane of the pharynx and rima glottidis, I have found a simple hot water gargle of great benefit. The water must be used as hot as can be borne by the patient, and as often as every two or three hours during the day. The addition of a very mild astringent increases the good effects of the hot water. Five or ten drops of the fluid extract of golden seal in two ounces of hot water, will be found as strong as it will be desirable to have it. I have found strong astringent gargles productive of more harm than good.

In a certain proportion of cases you will find the membrane lining the vault and sides of the pharynx covered with granulations. These granulations may extend into the nasal cavities and cover, more or less completely, the turbinated bones and septum. These granulations are best treated by applications of carbolic acid or the solid nitrate of silver. In making my applications to the vault of the pharynx, I direct the patient to hold his tongue down with my depressor; then, having previously wrapped a little cotton around the end of a block tin sound, number two, and having dipped the cotton in strong carbolic acid, I draw the soft palate forward and with a quick movement apply the acid thoroughly to the granulated surface. I prefer carbolic acid to other caustics because of its being less painful. To the granulations within the nasal cavities I apply the acid after first dilating the nostrils with the nasal speculum. After applying the acid I insert the following well up into the nose, and direct the patient to lie on his back for ten or fifteen minutes:

℞ Iodoformi..... 3ij
Bismuth. Sub Nit..... 3iij
Thymol..... gr. j
Ac. Carbol..... gr. iij
French Gelatine..... 3iij

Aquæ Rosæ q. s. to make a mass the consistency of jelly. Sig. Insert piece the size of a large bean in nasal passage.

This soon dissolves, and, flowing backward, forms a soothing coating for the irritated membrane.

In simple nasal catarrh, I have found injections of hot water, every two or three hours during the day, of very marked benefit. In those cases where hot water alone causes pain, from the low specific gravity of the injected fluid, I have found the addition of a little sugar or syrup efficient in relieving this pain. I prefer sugar to salt. Sugar is bland and unirritating; salt is not. These injections must be used with the anterior nasal bulb syringe. An important caution to be observed in using this syringe, is that the patient must not swallow during the time when the water is passing through the nasal passages, otherwise a little fluid may pass up into the eustachian tubes and set up an inflammation in the internal ear.

In those cases characterized by great fetor, you will find injections of a weak solution of carbolic acid, or a solution of sulphocarbolate of sodium, or of salicylate of soda, very efficient. When the catarrhal process has extended up into the frontal sinus, and the secretions in this situation have become fetid, you will have to continue the use of these disinfecting injections for months before the breath will become pure again.

CLINICAL REPORTS.

A Clinical Lecture by E. C. Seguin, M.D., Professor of Diseases of the Mind and Nervous System, College of Physicians and Surgeons, New York City.

I. HEMIPLEGIC EPILEPSY. TUMOR OF THE BRAIN.

GENTLEMEN:—The first patient whom I bring before you to-day is an American, aged 34, a cigar maker. He gives the following history: About three years ago he was taken ill and was confined to his bed for two weeks with what he describes as a slight fever. This illness came upon him gradually; there was no sudden attack, and it was not very severe, as he did not suffer much pain nor have any very definite symptoms excepting general malaise and fever. But during the course of the attack and after his recovery, he noticed a numbness and weakness of the left arm and hand. This continued for three weeks, when one day he was taken suddenly with a "spasm," which began with a "numb pain" in his left hand, running up to the shoulder, after which he lost con-

sciousness. He was told that he fell, that convulsive movements occurred in his left arm, leg, and the left side of his face. On recovering consciousness he says he felt tired and slept most of the following day, after which he was able to get up and return to work. Spasms similar to the one thus described, or less severe, have occurred at short intervals ever since, and until three months ago were increasing in frequency. The attacks have varied in severity, and it is only in the most severe that he has any loss of consciousness. In the lighter attacks there is merely the flash of pain in the arm, followed by a jerking to and fro, which continues from one to three minutes. The weakness of the hand has not increased and the sensation is said to be good. During the last three months he has complained of some trouble with his eyes, which is found to be diplopia, and at present he sees all objects double. About three months ago he presented himself at this clinic and gave this history. The result of an examination at that time I find recorded as follows: His walk is good. His facial lines are normal and the same on both sides. Power in his left hand diminished. Dynamometer marks 27 in left hand, 47 in right hand. His power of co-ordination in his left hand is impaired, the hand being carried to his nose oscillates vertically. On extending the fingers of his left hand it is found that they cannot be brought to a horizontal position, indicating slight contracture of the flexor muscles of the forearm. The tendon reflex at the wrist is absent. Sensibility is normal. Temperature the same on both sides. Eyes converge and move well. Complains of double vision. Physical examination of heart and lungs negative. Urine normal. He says he had a chancre eleven years ago, but denies any secondary symptoms of syphilis. The physician under whose charge he has been has used mercury and iodide of potassium with no apparent result. Examination at present shows no variation in the symptoms, excepting a decided decrease in the frequency of the spasms, due to the administration of the bromides of ammonium and potassium begun three months ago on his first application here.

The case is an interesting one, especially in regard to the diagnosis. It is evident from the history that the patient has partial hemiplegia associated with hemiplegic epilepsy. Cases of localized epilepsy are by no means rare; in the present case the epileptic attack is usually confined to the arm, extending occasionally to the leg, and more rarely involving the whole left side of the body. This localization of the spasm points naturally to a lesion localized in that hemisphere of the brain opposite to the side affected. The investigations of Ferrier, Fritsch and Hitzig, and others regarding the motor centres upon the cortex of the cerebrum, have aided us greatly in the localization of lesions in the brain. You are aware that the centres which govern the motions of the arm and hand are located in the ascending parietal and ascending frontal convolutions at the upper part, and on either side of the fissure of Rolando. Irritations of these centres in a monkey gives rise to movements in the opposite upper extremity. In the case of the patient the epileptic convulsions in the extremity indicate an irritation of these centres, and the hemiplegia shows the existencc of a lesion interfering with their normal action. In several cases presenting symptoms similar to those described by this man an autopsy has confirmed the localization of the lesion by revealing the existence of a tumor or a patch of softening in this region. The character of the lesion has next to be considered. It may be a hemorrhagic clot, a softening from an embolism, or a syphilitic tumor, or a tumor not syphilitic, or an abscess. We may dismiss the last at once, as he has had no history of abscess. Abscess is usually caused by an injury of the head, of which we have no history in this case. Its course is usually more rapid, and it gives rise to more marked symptoms, such as headache, complete paralysis, mental deterioration, all of which are absent here. With regard to the first supposition, I do not think that it is a hemorrhagic clot. There is no history of an apoplectic attack with loss of consciousness in the beginning. He does not look like a person liable to apoplexy. He is young, and, as you are aware, cerebral hemorrhages almost always occur from the rupture of small arteries and capillaries of the brain which are diseased. The disease is usually a degeneration, calcareous or fatty, and is found much more often in persons over forty years of age. Again, where one such hemorrhage has occurred, others are liable to follow, since all the arteries are usually equally diseased. But this patient has had no return of the symptoms with which his disease began. I think, therefore, that we may exclude a hemorrhagic clot. As to the softening following the lodging of an embolus, we must first account for the embolus. Emboli in the brain usually consist of vegetations from the valves of the heart produced by a preceding endocarditis. The endocarditis occurs very often with rheumatism, and usually gives rise to a heart murmur. Now in the present case we have no history of rheumatism, and examina-

tion fails to reveal the existence of any abnormal sound in the heart. The symptoms also contraindicate embolism, for a spot of softening may give rise to hemiplegia, but rarely to convulsions continued at intervals for so long a time. Embolism is usually followed by aphasia, the supply of blood being most frequently cut off from the Island of Reil. But in this case that symptom is wanting. Lastly the hemiplegia in this case has been too slight to be accounted for by embolism. Had the blood supply of the motor centres been cut off, complete hemiplegia would have followed at once, and then subsequently, if the circulation had been restored by anastomoses from surrounding vessels, the hemiplegia would have grown less. There remains, therefore, to be considered in this case, the question of the existence of a cerebral tumor. This seems to me to be the most probable diagnosis. As to whether it is syphilitic or not, I think the symptoms do not point to syphilis. The patient has had no secondary symptoms of syphilis. He has not complained of headache. He is not cachectic. And what is perhaps as important as any of these facts is the assurance of his physician that specific treatment has produced no improvement in his case. The diagnosis of a non-syphilitic tumor, therefore, remains probable. Such a diagnosis in this case is hypothetical and only to be arrived at by the method of exclusion which we have employed. The tumor is a small one and has not increased rapidly, but many tumors remain for years with no apparent growth. It is true that tumors usually give rise to headache as a marked symptom, but if the tumor does not involve the dura mater there may be no headache, since the pain is due to an irritation of the sensitive nerves of the dura mater. Such a tumor would explain the partial hemiplegia and also the convulsions. It would account for the slow progress of the case. As it grows it may involve the cranial nerves, and already we have in this case diplopia, which may be due to indirect or transmitted pressure upon the oculo-motor nerve. If it is a tumor the facial and other cranial nerves will be affected in time, choked disc will be seen by the aid of the ophthalmoscope, and other symptoms will confirm the diagnosis. I shall watch the case and bring the patient before you again as further symptoms appear. As to the treatment to be pursued, I shall continue the use of the bromides, giving them morning and evening, and increasing the doses if necessary until the convulsions are somewhat more under control.

At present the patient is taking 40 grains in the morning and 30 grains at night. I prefer a mixture containing two grains of bromide of potassium to one grain of bromide of ammonium, and this is the one in use in this case. There is one further point to which I wish to call your attention before we dismiss this case. The patient described a peculiar numb pain in his left arm which precedes or begins each attack. This is one of those various premonitory symptoms which have been called the aura. It has been known for 1,000 years that pressure upon the point where the epileptic attack is said to begin, or pressure applied to the limb above that point when the sensation is felt ascending the limb, will arrest the attack. In this case I have had a bracelet made for the patient which can be screwed up tightly around the wrist, and I directed him to turn the screw when he felt the queer sensation beginning in his hand. He tells me that he has done so several times with the result of stopping the sensation at the level of the bracelet, and thus arresting the attack. It is not always that this measure will prove of avail. The fact is that the phenomena are central and are referred to the periphery. It is said that an irritation excited in the periphery is transmitted to the centre and excites an inhibitory action. However we may explain the action, the fact remains, as you see in this case.

II. POST HEMIPLEGIC CHOREA.

The next case is also one of great interest in point of diagnosis. The patient is a male, 36 years of age, by occupation a tailor. He says that two and a half years ago he had an attack of bilious fever and pneumonia which lasted three months, after which he noticed a "sense of stiffness" in his left arm and leg, and a loss of sensation in his whole left side. Soon after, a trembling of his hand began to trouble him, and this increased and appeared also in his leg, until in the course of a month the jerking movements of his entire left side, excepting the face, were fully established. They have continued from that time until now, and you observe that, as the patient sits before you, he avoids resting his hand upon any support, but holds it in the air where it trembles constantly. When I ask the patient to touch my hand, or to lift this glass of water from the table, you see that the jerking becomes much exaggerated, and the greater the effort which he makes the more violent and uncontrollable are the motions. The motions, which were rhythmical while he was not using his hand, consisting of alternate contractions of the flexors and pronators and of the extensors and supinators, become unrhythmical and extravagant the moment he

attempts any motion. This tremor of the hand suggests at once paralysis agitans, but a patient with paralysis agitans sits with his hand upon his knee or steadies it against some object, while you notice that when this patient rests his hand on his knee, or supports it in any way, the movements become violent. When I take the patient's hand I find that his power is wholly gone and he cannot grasp my hand with any force, on account of the impossibility of making any co-ordinated movement of his muscles. Let us now notice the man's walk. You see that he drags his left foot as if it were heavy; that he drags it outward, describing the arc of a circle with the foot inverted. When he attempts to lift the foot from the floor a spasm of the muscles of the leg occurs and the leg is thrown about with violence. This is the characteristic walk of hemiplegia. It differs from the walk of paraplegia where the toe is dragged on the floor, the heel raised and the foot pulled along in the line of progression, and not thrown outward. Nor is it the walk of locomotor ataxia, where the limb is thrown forward, the heel first touches the ground, and the toes flap down with a peculiar stamp. It does not resemble the walk of hysteria or hysterical paralysis, for in that case the patient lifts the foot carefully a little way from the ground and brings the leg forward slowly. You notice that, as in the use of the hand, any attempt at voluntary motion of the leg is followed by irregular jerkings, which become more violent the longer they are continued. When both arm and leg are moved at once you notice that the jerking becomes extreme in the neck as well as in both limbs. The muscles of the trunk are not affected. His speech is good. There is no facial palsy. The nose deviates slightly to the left, which is probably natural, such deviation being frequently dependent upon the patient's using the handkerchief with one hand rather than the other. On examination with the æsthesiometer and needle, you perceive that there is partial hemianæsthesia of the left side, involving the face as well as the extremities. This is of importance in the localization of the lesion, as we shall see hereafter. These are all the symptoms of importance. The tendon reflex is present. There is no nystagmus and no trouble with his eyesight. The heart beats rapidly but there are no murmurs. He has had no pain at any time. He sees and hears well. I think the symptoms are sufficient to warrant a diagnosis. The history is a simple one of the development of chorea after an attack of hemiplegia, and hence it may be called, following Charcot, a case of post hemiplegic chorea. From the symptoms it is possible to localize the lesion and to estimate its character. You see at once that it is not a spinal lesion, for the paralysis and anæsthesia are upon the same side and the face is involved. It is therefore cerebral. Now there is but one spot in the cerebrum where a single lesion could produce these symptoms. The lesion must be at a spot where the sensory and motor bundles of nerve fibres are closely approximated. That spot is the internal capsule, or that part of the crus cerebri lying between the optic thalamus and the lenticular ganglion. It has been shown by experiments of Ferrier and Charcot, that an injury of the fibres at this point produces hemiplegia, and hemianæsthesia of the opposite side of the body. It has also been shown that the anterior part of the capsule consists of motor fibres, and the posterior part, of sensory fibres. A lesion in the centre will therefore affect both motor and sensory fibres and produce symptoms such as we have in this case. The irritation set up at the seat of the lesion is the cause of the continuous tremors. I think the lesion at present must be of the nature of sclerosis, as this will best explain the results of voluntary movement. A formation of connective tissue has occurred at the seat of the lesion and this new tissue unites the fibres that were originally broken by the initial lesion, which may have been a hemorrhage. But the tissue does not unite the fibres accurately, so that a fibre from the cortex to the seat of the lesion is now continuous with a fibre below, different from the fibre with which it was originally continuous. Hence, when a volition originating in the cortex is sent downward, it meets with this new connective tissue, which throws it upon other fibres not intended, and the result is new and unexpected movements. I judge that it is sclerosis from its mode of beginning, and by exclusion of such lesions as embolism, softening and tumor of the brain, by an absence of their appropriate symptoms.

The prognosis as to recovery in a case of this kind is very unfavorable. The sclerosis remains and cannot be removed. Treatment, therefore, is out of the question, excepting in so far as it aims at rendering the patient comfortable and keeps his general condition as good as possible.

FURUNCLES.—Dr. Planat (La France Médicale), employs in the treatment of truly inflammatory furuncles, a pomade, consisting of two drachms of the extract of fresh flowers of arnica and half an ounce of honey. Two or three applications of the pomade usually suffice to arrest the progress of the furuncles.

CORRESPONDENCE.

BELLEVUE HOSPITAL REPORTS.

NEW YORK, Sept. 25, 1880.

A number of cases of typhoid fever have been seen in the wards. The treatment in all cases is aimed at the reduction of the temperature, the nourishment of the patient, and at supporting the action of the heart when signs of asthenia manifest themselves. It is desirable to keep the temperature below 103°. Whenever the mercury rises above this point antipyretic treatment is employed. Cold is used in all cases by wrapping the patient in a sheet which is kept wet with water at a temperature of 70°. This may be continued an hour if necessary, and may be repeated at intervals of four hours. It is found to be more effectual than the cold bath, and can be applied with less disturbance to the patient, as a rubber sheet can be placed beneath him in his bed, and the wet sheet at once used, without any transfer to a water bed or cot. The temperature usually falls 2° during the application of the cold, and continues to fall for half an hour after it is discontinued. The temperature is to be watched during the application, and the pack is usually discontinued when it reaches 101½°. It is never to be continued until the thermometer indicates 99° lest the patient pass into a state of collapse. Cold may also be applied by sponging, and when the temperature is not very high this is often resorted to, each extremity being sponged separately, so as to expose the patient as little as possible. These two methods have superseded the use of the cold bath, as they are more convenient, more easily applied, disturb the patient less and give as good results. In severe cases the antipyretic action of quinine is added to that of the cold pack, a hypodermic injection of 15 grains being given at the beginning of the cold pack. In the third week of the fever some prefer to abandon the pack and trust wholly to quinine in large doses, fearing collapse or pulmonary complications.

For the nourishment of patients milk is used exclusively, and as much is allowed as the patient can take. Usually a full glass of milk is taken every hour, lime-water being added in the few cases where the milk alone seems to disagree. The proposal of Sir Wm. Jenner to substitute beef tea for milk, does not find much favor in hospital practice, but among private patients where beef tea can be properly prepared it is often employed. The demand is now so great that two of our celebrated restaurants prepare it daily for the use of the sick, and are able to dispose of large quantities.

In the latter weeks of the disease in all cases, and during its whole course in many asthenic patients, an important indication is to sustain the heart power. This is done by a free use of alcohol, whisky being the form most used at present. The quantity is determined by the needs of the case, but where there is necessity it is not spared, one case being allowed twenty ounces daily for three days with good result. Some use ammonia as well as whisky, but its action is considered less certain. When it is used the liq. ammon. acet. and the spts. ammon. aromat. are combined. Other symptoms are met by appropriate measures as they arise.

The use of oxalate of cerium in the chronic cough of phthisis and chronic bronchitis is meeting with some favor. Since its introduction into the hospital in May last, a large number of cases have been treated, but as yet no positive indications can be given for its use. It is given in doses of 5 to 10 grains, the usual course being to begin with 5 grains and gradually increase until the patient is taking 10 grains three times daily. It is given in the form of a powder. It seldom disagrees with the stomach, and in a fair proportion of cases is of decided benefit, quieting the distressing cough, and enabling the patient to obtain the needed sleep. It is suggested that it acts as a sedative to the hyperæsthetic nerves of the bronchi, just as it is supposed to arrest the nervous vomiting of pregnancy, but observations are needed to explain fully its method of action. As a matter of fact it has succeeded where other means have failed, and is worth a trial in many cases.

Two cases of gangrene of the leg have been watched with interest during the summer, and as they are about to be published, your readers may be interested in the treatment. Both cases were due to embolism of the femoral artery. It was decided to wait for a natural separation of the dead limb from the living tissue before operating; and while this process was going on the limb was suspended in a cradle and a hot water bath applied every thirty minutes, the temperature of the water being 110°, and the bath continued about 15 minutes. The temperature of the limb was thus maintained at about normal, during the period of 5 weeks, at the end of which time the line of separation had extended down to the bone. Disinfectants were used in the water, girondin being found of the greatest service in concealing the odor. In both cases amputation was performed after the line of separation was complete, and the patients are now discharged well. The use of the hot water bath is commended by all the surgeons who have observed the cases. S.

THE ARMY.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from Sept. 13, 1880, to Sept. 28, 1880.

The following promotions and appointments are published:

Moore, Jno., major and surgeon. Assigned to temporary duty as member of the Army Medical Board in New York City, S.O. 194, A.G.O., Sept. 11, 1880.

Irwin, B. J. D., major and surgeon. Relieved from duty in department of Dakota, and to report in person to the lieutenant-general commanding military division of the Missouri, for duty as attending surgeon at headquarters of that division, relieving surgeon Spencer. S.O. 205, A.G.O., Sept. 24, 1880.

Spencer, W. C., major and surgeon. When relieved by Surgeon Irwin, to report in person to the commanding general department of Dakota for assignment to duty. S.O. 205, C.S., A.G.O.

Goddard, C. E., major and surgeon. To report in person at the expiration of his present leave of absence to the superintendent mounted recruiting service for duty as post surgeon at the cavalry department, Jefferson Barracks, Mo. S.O. 205, C.S., A. G.O.

Brown, J. M., captain and assistant surgeon. To accompany battalion 16th infantry from cantonment on the Uncompahgre, Col., to Fort Garland, Col., and there remain on duty. S.O. 211, department of the Mo., Sept. 22, 1880.

Brewer, J. W., captain and assistant surgeon. To report in person to the commanding general department of the south, for assignment to duty. S.O. 205, C.S., A.G.O.

Tremaine, W. S., captain and assistant surgeon. Relieved from duty in department of the Missouri, and to report by letter at the expiration of his present sick leave of absence to the surgeon general. S.O. 205, C.S., A.G.O.

Munn, C. E., captain and assistant surgeon. To accompany the battalion of the 4th cavalry, which is relieved from duty with the Ute expedition to Fort Garland, Colorado, and then proceed to and take post at Fort Hays, Kan. S.O. 210, department of the Missouri, Sept. 21, 1880.

Ainsworth, F. C., captain and assistant surgeon. Granted leave of absence for six months. S.O. 196, A.G.O., Sept. 15, 1880.

Harvey, P. F., captain and assistant surgeon. Assigned to duty at Fort Snelling, Minn. S.O. 113, department of Dakota, Sept. 22, 1880.

Weisel, D., captain and surgeon. To report in person at the expiration of his present leave of absence to the commanding general department of the east, for assignment to duty. S.O. 205, C.S., A.G.O.

Winne, C. K., captain and assistant surgeon. Relieved from duty at Fort Brady, Mich., and assigned to duty as post surgeon at Ft. Schuyler, N.Y.H. S.O., 167, department of the east, Sept. 21, 1880.

Price, C. E.. captain and assistant surgeon. To report in person to the commonding general department of the east for assignment to duty. S.O. 196, C.S, A.G.O.

Reed, W., captain and assistant surgeon. Assigned to duty as post surgeon at Fort Ontario, N.Y., S.O· 167, B.S. department of the east.

Biart, V., 1st lieut. and assistant surgeon. Relieved from duty in the department of the Missouri, and to report in person at the expiration of his present sick leave of absence to the commanding general department of Dakota for assignment to duty. S.O. 205, C.S., A.G.O.

Riehard, Chas., 1st lieut. and assistant surgeon. Relieved from duty at Fort Snelling, Minn., and assigned to duty as post surgeon at Fort Maginnis, M. T. S.O. 110, department of Dakota, Sept. 15, 1880.

Benham, R. B., 1st lieut. and assistant surgeon. Assigned to temporary duty with escort to working parties on extension of North Pacific R.R. at Camp Houston, D. T. S.G. 113, C.S., department of Dakota.

BOOKS AND PAMPHLETS.

Henry W. Baker, M.D., Lansing, Michigan. Eighth Annual Report relating to to the Registry and Return of Births, Marriages and Deaths, in Michigan, for the year 1874. By the Superintendent of Vital Statistics, under the general direction of the Secretary of State, of the State of Michigan, 1880.

William A. Hammond, M.D., New York, N. Y. Suggestions for Improvements in the Management of the Insane and of Hospitals for the Insane in the State of New York.

D. W. Graham, A.M., M.D., Chicago. The Chicago Medical Register for 1880–81. Published under the supervision of the Chicago Medico-Historical Society. Chicago: W. T. Keener, 1880.

F. C. Hotz, M.D., Chicago. Aural Complaints in Consequence of Malaria. Reprinted from Archives of Otology, Vol. IX, No. 3, Sept. 1, 1880.

Chicago Medical Review

Published on the Fifth and Twentieth of the Month.

E. C. Dudley, Editor.

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Business Office, 60 Wabash Ave. Editorial Office, 70 Monroe St.

Vol. II. No. 8 CHICAGO, OCTOBER 20, 1880. $2.00 a Year.

The American Academy of Medicine.—While the Review is in sympathy with the aims of the Academy, as set forth in the report of its last meeting which appears on another page, it may also be said that in the minds of many of the older and wiser advocates of higher medical education, its present methods are not well adapted to producing the best results, although it is clear that the Academy has struck the key-note in its demand that the candidate for the medical diploma shall have pursued a liberal preparatory course before matriculation in the medical college. In a spirit of friendliness for the Academy the Review recognizes the defects which are weakening its influence and destroying its usefulness. According to its published circular the degrees A.B. and A.M. (not honorary) are essential to fellowship. This shuts out a host of the most influential and appreciative champions of the cause it represents, because they have not these degrees, nor will they satisfy themselves with the honorary fellowship which it is understood may be conferred upon those who, lacking the charm of A.B., A.M., are therefore too ignorant to flourish as active fellows. It excludes many graduates of high stand colleges, who have A.B., but decline to take A. M. because it is a mere formal degree in America, and stands for little or nothing. It admits the graduate of a low stand college, whose degrees do not represent the knowledge requisite for sophomore examinations in Yale or Williams. Finally, it repels the majority of the older and wiser Bachelors and Masters of Art, as well as some young ones, who lack faith in the future of an organization which so plainly places itself in the way of the charge of affectation and pretention; nor is this charge weakened in that, as we believe, it does not represent the true spirit of the Academy. Let the Academy adhere to its platform of a liberal though not necessarily Bachelors' and Masters' preparation for the study of medicine: let it admit any reputable doctor who will pledge himself to the radical support of such a platform. We are informed that certain propositions for a change in its requirements for fellowship are now waiting action. We are not informed of their exact nature or extent, but in the interest of the profession hope that the Academy will thrust aside that exclusive standard by which its members become the unit of measurement for the profession. Unless something of this kind be done, some of its most worthy fellows whom we know to be in sympathy with the spirit of our remarks will withdraw from active service in its interest, and leave the remainder to degenerate if not into a mutual admiration club of low and narrow limits, then into nothing.

THE IDEAL PHYSIOLOGICAL TEACHER.—While the science of anatomy deals with the plastic contours of matter, and it is indifferent for the purposes of purely descriptive anatomy whether the objects with which it deals are dead or living, the science of physiology takes up the machine elements of the body as known through the researches of anatomists, and sets them in living motion before the student's eye. The forces of matter with which the physiologist has to deal are of so subtle a character, and manifest themselves under so many different guises, and are, furthermore, so complicated by the numerous combinations into which several primarily distinct mechanisms are thrown in obedience to the organic exigencies, that the teacher of that science finds himself in a similar, yet more serious predicament as to the manner in which he should open his subject, to that of his anatomical colleague.

It is our experience with students that, no matter how thorough their preliminary training, time is but wasted and enthusiasm quenched by the teacher if the latter proceeds to analyse any one set of functions at the opening of his lecture course, and to introduce his pupils without preparation to the intricate mechanism which the simplest set of functions involves. While his subject is on the whole more difficult to teach than anatomy, and this naturally because his registrations and theories involve far more numerous and higher combinations of the mental activities than the merely visual memory and pictorial imaginative power which anatomy calls into exercise, yet he has one advantage over his colleague, an advantage analogous to that enjoyed by the teacher of mathematics over the teacher of outline geography, for instance. He is able to begin with the simpler elements of a science and to gradually advance to the more complex. While the anatomist is compelled to deal with a complex organism from the very beginning of his course, and to proceed synthetically, ranging one structure, or set of structures, successively in its natural place, and then exhibits them in their congruity, the physiologist should proceed analytically. He will begin with the function of functions, protoplasmic movement; exhibit the amœba, the white blood corpuscle and the movable cells of the connective tissues as illustrating the great type of all organic activity. He will explain thoroughly the biochemical basis of such movement, and show in a rough sketch how the highest elemental functions depend on force oscillations analogous to those seen by the student on the stage of the microscope. The latter has then something tangible to start with, something that appeals to the eye; better able to understand analogies than to grasp abstractions, he has now a satisfactory conception of the molecular movements and the physical basis of such complex actions as those of nerve currents, the influence of sound, light and other impressions, taking place as they do in modified protoplasm, are not the unplausible bugbear to him that they to-day constitute for ninety-nine out of every hundred of our medical students. He will follow this up by a clear exposition of the finer histology and physiology of those elaborated amœboid movements, as they might be not improperly called, the contractility of unstriped and then of striped muscles, and in the course of their demonstrations has the best opportunity to explain the fundamental principles of the graphic method. He has thus given the chemist time to teach the same class of students the first principles of organic chemistry on the one hand and the anatomist the opportunity of demonstrating the outline of the circulatory system on the other, so that immediately after having explained the principles underlying the mechanical movements of the body, he is able to apply them to the study of the circulatory system. It is of importance to take up this system before any other, inasmuch as the function of no system can be dealt with unless the circulation of the organs in which that function takes place, be known beforehand. Thus by an easy transition, such as is followed in such excellent works as Foster and Bruecke, though ignored in the compilations issued by some of our own physiological teachers, the student is introduced to the more elaborate function combinations involved in assimilation, glandular action, and the primitive nervous functions,

and with this system the lecturer will find that he must leave the first year's student. For the latter, only the principles underlying the manifestations of normal life are requisite to know. It is the second and third year's student who can be advantageously instructed in the physiology of special organs, in physiological optics and acoustics, in the functions of the great glands, in the physiological phenomena of generation and the functions of the higher nerve centres. This for the reason that he has during his first year acquired an anatomical conception of these organs, and, in addition, that, as indicated in the last number of the Review, he is during his second year engaged in the study of the finer anatomy of the same. Every one will recognize how dull the study of histological and anatomical details, as such, becomes, unless at the same time some object for this study be present before the student's mind, and how can this be better kept in view than by studying both structure and function in close chronological proximity? The question arises how far should the physiologist in the course of these instructions encroach on the fields of histology and chemistry? It is well known that in some of our schools the physiological lecturer goes, or pretends to go, over the entire ground of histology. As has been indicated in the first article of the present series, however, this is properly the field of the anatomist, who can teach the anatomy of no system or organ properly unless he combines in one continuous description its coarse and fine structure. The very fact that this is only exceptionally done, is the reason why we have so many good coarse anatomists, and so many excellent histologists, and so few who are able to make an intelligent combination and application of what they know to physiology and pathology. The physiologist should touch histology and pathology just so far and no farther, as anatomy fails to touch it, namely, in relation to the vital phenomena of cells, their movements, nutrition and reproduction. While the anatomist will exhibit the number and thickness of the intestinal layers, the number, distribution and relations of the intestinal glands, and the morphological character and derivation of its different cells, the physiologist should demonstrate the varying states of these cells and glands during the digestive processes, and the chemical and physical peculiarities by which the physiological character of each cell can be determined. He and not the anatomist is interested in the manner in which the products of intestinal chemistry are taken up by epithelia or vascular channels. While, therefore, the anatomist will scarcely ever find it necessary to pass beyond a magnifying power of five hundred diameters, the physiologist requires the highest powers of the microscope and the most delicate and varied histological agents and appliances.

As to the question of chemistry, the same rulings will apply. So far as chemical details are not essential to the understanding of the functional processes, so far the physiologist should not be required to touch them. Whether there is indican in the urine, or myosin in a muscle, or hypoxanthin in the blood, it is very important to know, but it is not necessary to know it in order to comprehend the mechanisms (and physiology is, after all, the science of the somatic mechanism) of excretion, of muscular movement and of the circulation. The subtler chemistry of fluids and tissues and the transformation of chemical combinations can be intelligently taught in the chemical laboratory only. To exhibit a few tables showing the composition of the blood quantitatively and qualitatively during a physiological lecture, as is customary, is a mere pretext, a wanton burdening of the mind with, under the circumstances, useless details. Of course this implies the association in the faculty with the physiologist of a thorough chemist, one who does not, as we have witnessed it, go over the mechanism in the steam engine, the composition of the different petroleums, the adulterations of coffee and shoe-blacking, and occupies six lectures with the study of the processes by which sulphuric acid, and four more with those by which the aniline dyes are manufactured, in order to conceal the utter ignorance of anything related to physiological chemistry which the vast majority of our chemical teachers must plead guilty to. We doubt whether in at least half of our schools the subject of physiological

chemistry, properly speaking, is even touched. In our larger graduating presses, as per announcement of the catalogue, magic lantern exhibitions are frequently given. The lecture room is darkened, a magnified picture thrown on the screen, and thundering applause greets any accident occurring to the machinery. The objects thus shown are microscopic sections and sphygmographic or other graphic traces. Not the slightest good is accomplished by the exhibition. No idea is better than a false idea, and histological photographs magnified and thrown on a screen often resemble a photograph of the moon rather than the tissue they are intended to represent. No adequate conception of a tissue can be acquired except by an examination of the specimen itself. As far as graphic tracings are concerned, these can be as well shown on plates as on a screen. The sole object of resorting to the megascope and magic lantern is to produce a sensation and overawe the immature mind with apparatus.

That, as we have just stated, the physiologist should leave instruction in chemistry and histology in great part with his colleagues does not imply that he should not be thoroughly trained in both these sciences, which are essentials to any broad conception of his subject. It is simply meant that others can more advantageously teach these subjects, as harmonizing with their principal ones, and because those occupying those chairs are provided with the means requisite for illustration. Thus while the anatomist constructs the body outlines, and the chemist brews the matter contained within those outlines, the physiologist sets that matter in motion within the outlines laid out by the anatomist. If the study of the complicated anatomy of the special organs was a necessary preliminary step to the comprehension of their physiology, the latter, now the property of the maturer student, paves the way, as we shall endeavor to show in our next issue, to an intelligent comprehension of the pathological processes.

The office of the physiological teacher is therefore of far greater importance than is usually conceded, for his teachings foreshadow the application of that which has been learned scientifically to the practical emergencies of the future physician's everyday life. And, in addition, while the chemist and anatomist have trained the student in the simpler mental processes of memory and synthesis, the physiologist has built further on the foundation laid by his predecessors, and made the pupil a logician, and familiarized him with some of the manipulations that will stand him in good stead in his practical career.

NURSES.—We hail the establishment of the Illinois Training School for Nurses as an efficient means of ridding the city of the pestiferous old crones who are usually candidates for the position of nurse, and of substituting in their place, women of intelligence, education and special training. In the board of managers of this school are Mrs. Sarah L. Wright, Sarah Hackett Stevenson, M.D., Mrs. J. M. Flower, Mrs. C. B. Lawrence, Mrs. William Penn Nixon, Mrs. J. C. Hilton, Mrs. Thomas Burrows, Mrs. Thomas Wilce, Mrs. W. G. Hibbard, Mrs. Frank Douglass, Mrs. George W. Smith, Mrs. A. A. Carpenter, Mrs. Godfrey Snydacker, Mrs. J. M. Walker, Mrs. Orson Smith, and Mrs. Keogh. Its officers are: President, Mrs. C. B. Lawrence; First Vice-President, Mrs. W. G. Hibbard; Second Vice-President, Mrs. J. C. Hilton; Recording Secretary, Mrs. Thomas Burrows; Corresponding Secretary, Mrs. Edward Wright; Treasurer, Mrs. J. M. Flower. In addition to the board of managers there is to be an advisory board, to consist of several of the county commissioners, prominent physicians, and influential citizens, with whom the board of managers may confer on all points of difficult adjustment. The constitution provides for members at $10 annually, associate members at $5 annually, and "benefactors," who pay $500 toward the society's support, and who have the privilege of appointing two nurses each. Members may have their dues commuted for life on payment of $100, and associate members for $50. The voting power of members is double that of associate members, otherwise there is no difference. The constitution further provides for a board of managers, not less than nineteen in number, which shall

govern the society, elect officers from their number, etc. The course of instruction will extend over two years, and will be theoretical and practical and will include a thorough study of all the subjects with which an accomplished nurse should be familiar. At the completion of this course a suitable diploma will be awarded.

The Energy of Respiration During Starvation has been examined experimentally, by Dr. D. Finkler, in the physiological laboratory at Bonn. (Pflügers Archiv, Vol. 23, p. 175). His results shed a strong light on some of the phenomena of starvation. His attention was mainly devoted to the temperature of starving animals, and the mode by which they sustain it. Numerous contradictory statements are afloat as to the loss of bodily heat during abstinence. Some of the most reliable results are those obtained by Chossat on pigeons. Measured at midday the temperature sank in Chossat's researches no more than one-half of one degree C. in the course of several days of starvation. At midnight, however, the temperature was normally about 0.75°C. below the diurnal standard, and in fasting animals this difference was increased to about 3°C. In the author's experiments on guinea-pigs, no sensible reduction of temperature was found at all after a fast of over fifty hours. In the next place Finkler determined the amount of oxygen absorbed by the animal previous to and during the fast. The quantity of oxygen was calculated in proportion to the bodily weight, which latter of course diminishes during starvation. Since the energy of respiration varies with the temperature of the air, it being more active in order to maintain the internal heat in cold weather, care was taken to conduct the experiments at a uniform temperature. The chamber in which the animals stayed during the experiments was kept at either 18°C. or for comparison at about 3 to 4°C. The result was that the amount of oxygen absorbed by the animal per kilo and hour was but very little diminished by starvation. On exposing the guinea-pigs to a low temperature (3° to 4°C.) they increased their tissue-change in the same ratio as the normal animal. The oxidizing processes were hence not sensibly diminished by fasting. The animal does not maintain its internal temperature by checking the radiation of heat through the skin, as might be supposed to be the more economical way, but by keeping up the normal energy of respiration. This shows us why the duration of life may be shortened so decidedly by exposing the fasting subject to cold air, which necessitates a more vigorous tissue-change. The amount of carbonic acid exhaled did, however, fall below the normal figures in the fasting animals. While the volume of carbonic acid gas exhaled is normally about ninety per cent. of the volume of oxygen inhaled, the proportion sank to about seventy per cent. by a few days fast. But this does not signify diminished oxidation, but simply that oxygen unites with relatively more hydrogen and less carbon than normally. This is quite evident when we consider that the fasting animal oxidizes its own tissues, which have not quite the same composition, and do not contain carbon and hydrogen in the same proportion as its usual food.

Perforating Tuberculosis of the Bones of the Skull was first pointed out as a distinct disease by Volkmann in the Centralblatt für Chirurgie, No. 1, 1880. He has observed twelve cases, in all of which the seat of the disease was the frontal and parietal bones. It was always strictly localized and not very extensive, occurring in only one place in the bone in question. This slight degeneration and the subsequent inflammatory alienation with the formation of a sequestrum, always involved the whole thickness of the bone in such a way that the dura mater on the inside, and the periosteum on the outside, became detached from the bone by a layer of pus, and that consequently a small local perforation of the cranium had taken place. The cause in all the cases except one was this: That a limited extra-cranial abscess slowly made its appearance, accompanied only by insignificant inflammatory symptoms. The abscess often felt so flabby that it might easily have been mistaken for a traumatic

cephalæmatoma, but when opened by incision, or spontaneously, invariably gave issue to a quantity of the characteristic cheesy tuberculous pus. After having opened the abscess by a large and free incision, the walls were always found to be covered with a layer of fungous adenoid granulation tissue, containing numerous miliary tubercles. This layer of tuberculo-adenoid tissue was as usual easily scraped off and the diseased spot of the bone exposed to view. A disc of bone five to ten millimeters in diameter, had suffered cheesy degeneration, was anæmic, yellowish and often already eliminated, forming a loose sequestrum which could easily be removed by a sharp spoon or elevator. In some cases there was no separated bone, but, nevertheless, a perforation through the whole thickness of the skull, so that the pus in the extra-cranial abscess showed a distinct pulsation. In one case, the whole of an extra-cranial abscess of the size of a hand pulsated very distinctly before it was opened, and had a perforation of only the size of a pea.

At first Volkmann only opened these abscesses, but the fungous sinuses leading down to the dura mater were always left, the osseous tuberculosis in the cancellous tissue steadily increasing, and sometimes more alarming symptoms setting in from retention of pus between the dura mater and the bone. In consequence of this course of the disease, Volkmann was obliged to resort to more energetic means of treatment. The abscess was laid open in its entire length and the layer of tuberculous granulations carefully scraped off. In four cases trephining was resorted to, and the dura mater, as far as it was covered with tuberculous eruptions, carefully scraped. In no case was the operation followed by serious consequences. Antiseptic after treatment was employed. Rapid and definite healing, however, took place in only half of the cases, and even in some of these it was necessary later to cauterize energetically with nitrate of silver to get healthy granulations and a permanent cicatrix. Trephining was resorted to when the cheesy degenerated osseous tissue was not yet eliminated as a sequestrum, or when, after a sequestrum had been formed, the borders of the osseous tissue surrounding the opening showed signs of cheesy infiltration. The disease in the osseous tissue was in all cases so limited that only a disc of from one and one-half to two centimeters in diameter had to be removed. The resection of the osseous tissue was accomplished partly by chisels and partly by Lüer's spoon forceps. The osseous tissues surrounding the parts which had suffered cheesy degeneration was sometimes so sclerotic that considerable force had to be applied in the use of the last named instrument. To illustrate, we will give the history of one of Volkmann's cases, a boy five years old and of apparently healthy family. Three months previous to his admission to the hospital a small fluctuating tumor appeared over the middle of the left parietal bone, and increased slowly to the size of a large walnut. An incision was made which gave escape to a quantity of cheesy pus, and a piece of the bone, about two centimeters in diameter, was found to have undergone cheesy infiltration. In the middle of this was found an eliminated cheesy sequestrum of the size of a cherry-stone, on the removal of which a probe could be introduced into a very large abscess cavity between the dura mater and the lamina interna cranii. After trephining it was observed that the outside of the dura mater was covered with a thin layer of granulation tissue, in which, with the naked eye, numerous pearl-colored tubercles were visible. The dura mater was then scraped and the very luxuriant fungous granulations of the abscess removed. A drainage tube was inserted and Lister's dressing applied. This was followed by speedy recovery. The loss of substance in the cranium seemed mostly to have been filled out by newly-formed osseous tissue. Almost immediately afterwards a very severe fungous arthritis appeared in the left elbow, going out from a cheesy focus in the internal condyle of the humerus, and containing a sequestrum of the size of a pea. The inflammation broke through the skin and left twelve sinuses. Cheesy degeneration of the axillary glands was also present. After excision of the elbow joint and scraping out of the axillary glands, the patient made a speedy recovery.

MEDICAL ANECDOTES.—It is an almost essential requirement made at our average medical schools, from the respective lecturers, that the monotony of the lectures be pleasingly varied by the relation of an amusing story or the perpetration of a pun. No matter how stupid the latter, or how devoid of point the former, a thundering burst of applause is certain to greet the lecturer, and gives him time to collect his ideas, and perhaps to moisten his lips with a glass of water. Inasmuch as the obeying of this custom may be considered a merciful dispensation to the professor, and also to the student, who without the allowance of such intermezzos would find an eight hours' seance in his seat unendurable, no one will quarrel with this custom. To us it has been a matter of surprise that no one has as yet thought of collecting the most favorite witticisms in a volume of reference, so that the lecturer of the future may find them conveniently condensed for his selection, and not be compelled to repeat the same jokes year after year. It is the chair of obstetrics and gynæcology which is usually most noted for performances in this line, and it seems that just as America has been foremost in its scientific contributions to these fields, so it is also copied from abroad, as far as the accompanying jokes are concerned. One of the most venerable evolutions of obstetrical witticism, the story relating to a doctor who on being interpellated in regard to the progress of a certain labor case, replied that the mother being dead and the child dying, he hoped to save the father yet, has now found its way across the Atlantic. A Parisian daily paper relates the same story with a piquante variation. A citizen walking past the building of the clinic of the medical faculty, on hearing a wild burst of applause, stops to enquire the reason, and is told by an emerging student that they have just witnessed a fine operation, a case of dystocia. The good citizen asks mechanically how the mother is doing, and is answered that she is dead. The same inquiry regarding the child is followed by the same answer; exit citizen in a brown study. Some days later he meets the same student leaving the clinic looking depressed, and interrogates him as to the cause of his sadness. The answer this time is that they have had a very bad operation. Citizen, reflectively, "Oh, I suppose the paternal part of the family is dead too!"

ESTIMATION OF THEIN.—The following process (Patronillard in Schweiz. Wochenschr. f. Pharm.) is simple and effective, and greatly shortens the ordinary manner of estimating thein. 15 grammes of tea are repeatedly and slowly extracted with boiling water, until completely exhausted. The filtered liquids are evaporated almost to dryness, and then treated with 2 gr. of magnesia alba and 5 gr. of finely broken glass. The whole is now evaporated to dryness. The finely pulverized residue is treated with 60 c.c. of ether three or four times. The ether is then distilled off, or better, left to spontaneous evaporation. By the latter process the thein is obtained in a crystalline state. The crystals are taken up with a little chloroform which dissolves them readily. It is then transferred to a weighed dish and slowly evaporated to dryness. The increase in weight of the dish gives the weight of the thein directly. Care must be taken not to use too little ether, since thein is only slightly soluble in this reagent.

COLOR-BLINDNESS.—In our editorial allusion to Dr. Jeffries' article we did not mean to convey the idea that we actually understood him to believe that color-blindness was more prevalent amongst medical men than amongst the general population, or that physicians were slower and more stupid than others. That, however, was not an impossible inference from his language, if any one chose to adopt it; the statement that the test was also a criterion of mental alertness was not sufficiently guarded. The criticism would perhaps be unfair if taken in a most serious manner.

ACCORDING to "Science" an Italian commission, headed by Prof. Selmi, is investigating the methods of detection of poisonous alkaloids in the viscera, with special reference to the so-called "ptomaines," alkaloids which, under certain circumstances, may be generated during the putrescence of animal matter.

THE MEDICAL AND SURGICAL REPORTER.—In view of the fact that hypodermic doses of one-half grain of morphine have repeatedly killed people, we had supposed it prudent in cases whose tolerance was unknown, even though the pain were severe, to give at first somewhat smaller doses frequently repeated. This notion had been confirmed by our personal experience of one case in which death from narcotism followed a hypodermic of one-fourth grain in eight hours. Although the necessity for such a protest seemed pitiable, we offered one against a writer in the Reporter, who advised in a general way one grain hypodermically in cases of severe pain. The editor of that journal politely replied that this protest was not only in a Western journal, but was one of the weakest specimens of its kind that he had ever seen. We then apologized for having taken such liberties with the Reporter. Now the M. and S., &c., wishes to know the feeling of "the promising young practitioner who edits the Chicago Medical Gazette, or Review, or whatever its present name may be," about an article in the Practitioner in which from one and one-half to four grains are recommended hypodermically, and about another article in the same journal in which is recorded benefit from the injection of six grains three times a day. The M., &c. also inquires whether Achilles has not fallen asleep. The Review presumes that the writers in our English contemporary know the tolerance of their patients when they employ large doses. It is also regretted for the credit of the editor of the &c. that his last editorial was so framed as to convey the erroneous impression that we would never give as much as one-half or one grain hypodermically. Our strictures were against the *habitual* use of such doses, even in cases of severe suffering. It is also presumed that the editor of the &c. knows that even sixty grains and more have been given in a day with benefit. We thank the editor of the &c. for the distinction of youth, promise, and of being called a practitioner. Although we do not know whether the eminent editor of the &c., the speculative ethnologist and author of The Religious Sentiment is himself a "practitioner," either young or old, yet we deem it our duty out of humanity towards his patients and kindly interest in the future of his career as a "practitioner," to advise him, even in cases of severe suffering, not to go about indiscriminately slamming from one-half grain to one grain or more of morphine into human beings of whose tolerance he is ignorant.

GLYCERIN-PHOSPHORIC ACID IN URINE.—The existence of phosphoric acid as a normal constituent of healthy urine is now generally acknowledged. Klüpfel and Fehling have also proved that this acid exists in combination with an organic compound. Sotnischewsky has lately (Z. f. Physiol. Chem.) communicated the results of his investigations on this subject, in which he claims to have proved the presence of phosphoric acid combined with glycerin in normal human urine. In ten litres of urine the phosphoric acid was precipitated by milk of lime and calcium chloride, treated with sulphuric acid, boiled, and after cooling the phosphoric acid precipitated by ammonium hydrate and magnesium sulphate. In the filtered liquid glycerin was easily detected. From these facts it is concluded that the glycerin-phosphoric acid is a constant and normal constituent of urine, and not an evidence of disease.

THE PATHOLOGY OF YELLOW FEVER.—The work by Dr. Spinzig on the above subject, of which a fuller notice appears in our review department, calls for some special editorial comment. Its author defends an idea, the view that yellow fever is *not* caused by a virus or poison, and he does this with arguments based on facts and arguments ad hominem. We must concede, to start with, that no modern researches have supported the view of a bacterial origin of the disease, simply because no investigations of the proper kind have been made. The presence of a few granules resembling micrococci in the tissues proves nothing; their absence, or rather the impossibility of seeing them in the ordinary microscopic sections, signifies even less. Hence Dr. Spinzig's position, the present grounds for the germ origin of yellow fever, looks like a fight against windmills. But his opposition

to the germ theory in general has nothing convincing, when examined by any one conversant with the real proofs of the parasitic origin of diseases. The author displays in the book an imposing erudition, but which is unfortunately often out of place, as the authorities quoted do not happen to touch always on the subject on which he speaks at the time. Some of his own views are often startling. Thus he says, (p. 91):

"Mucine is the ammoniacal or alkaline substance which from all probabilities is essential for the formation of bile; glycogen, the other product (foot note, of a hydrolytical change in the liver) forms under the access of arterial blood into the acini, and which is derived from the hepatic artery. This substance is from all indications a suboxide, and is carried by the hepatic vein into the vena-cava, reaching thus the lungs, where it eagerly attracts oxygen from the atmosphere, and thus constitutes the vital impetus in the process of respiration."

To this we can only add, that mucine is neither ammoniacal nor alkaline, and that it is a secondary constituent of the bile, since it is only formed in the mucous glands in the lining membrane of the bile-ducts, and not in the liver; that glycogen, the origin of which from arterial blood no one has as yet proven, is not a suboxide chemically, that it has no attraction for oxygen, and that it is not at all carried away by the blood-current, and hence can not reach the lungs. Arguments o the nature found in this book will hardly deter a competent observer from seeking the germs likely to be the cause of the disease. More important are the details collected by the author to show that instances once supposed to corroborate the infection-view really militate against it. The conclusiveness of these data could only be questioned after scrupulous reference to their original source. The array of metereological and statistical data, however, which serve as a monument of the author's diligence, will probably be skipped by most readers, and without detriment.

Reagent for the Detection of Water.—If an aqueous solution of two parts of citric acid be mixed with one part of molybdic acid, and evaporated in a porcelain dish to incipient fusion, it affords a dark blue mass. If this is warmed with thirty to forty parts of water it gives in addition to a fixed residue a filtrate of a light brownish yellow color. This is a compound of citric acid with molybdenum. When this compound is anhydrous, it is of a dark blue color; when in contact with water, however, it is almost colorless. If strips of filtering paper are saturated with this solution, and afterwards dried at 100°, the blue color is shown with great intensity. In the air, and protected from the direct sunlight, these papers keep their color a long time. If sealed up in a flask they remain unchanged for months. If such a paper is put into pure water it instantly loses its blue color and becomes white; the water, meanwhile, remains uncolored. The temperature of the water should be about 50°. If it is lower the change of color requires a few seconds for its completion. The citric-molybdic acid solution should not be too concentrated, since a weaker solution gives a more sensitive test paper. This paper is especially useful in testing for absolute ether and alcohol. In contact with these it should not suffer the slightest change. In these cases the rapidity with which the color disappears at a given temperature is an index of the amount of water present.

Medico-Legal.—The report in this number of a very interesting case by Dr. Stroinski closes with a medico-legal conclusion of questionable accuracy. The view of Beigel does not necessarily exclude the possibility of spermatozoa entering the cervix in whatever position the cervix may be. It may be said only that impregnation is more liable to occur when the os uteri lies in Beigel's reservoir for the seminal fluid, the posterior vaginal cul-de-sac. Therefore pregnancy in retroflexion is not necessarily incompatible with the view of Beigel, nor is it necessarily contradicted by this case, because the lipoma may have obstructed the passage of the semen after coition, or, what is more probable, it may have produced so much irritation of the endometrium as to pre-

clude pregnancy. Objections may be urged against both the premises and conclusions of our author's medico-legal point. The premises are probably incorrect; certainly not proven. The occasional occurrence of pregnancy without rupture of the hymen would almost disprove them. But, assuming the premises to be correct, the conclusion that the normal position of the virgin uterus renders pregnancy an impossible result of the forcible attempt would not follow, because if resistance were offered up to and during the first part of coition, and the act were completed without resistance, pregnancy might occur, according to the author's theory, and yet legally rape would have been committed no less than if resistance had been offered throughout. Moreover, we have yet to be convinced that the physiological congestion and erection of the uterus which the author deems necessary to impregnation, may not occur in the purely forcible attempt. The author's views, if incorrect, are capable of working serious injustice. This consideration, we doubt not, will lead him to overlook the liberty with which we offer this criticism.

New York Hospital.—Dr. Bulkley will give a fourth course of lectures on diseases of the skin, in the pathological amphitheatre of the New York Hospital, 7 West Fifteenth street, Wednesday afternoons from 2:30 to 3:30 o'clock, commencing Wednesday, October 6, 1880. The lectures will be didactic and clinical in character, going over the entire subject of diseases of the skin (including syphilis) and will be freely illustrated by colored plates, photographs, life-sized models, the blackboard, and abundant clinical material. The pathology, differential diagnosis, and treatment of diseases of the skin will be especially considered. The course will consist of twenty-four lectures and will be free to practitioners of medicine and medical students.

New Veterinary Monthly.—We have received on our exchange list the Veterinary Gazette, a monthly journal of practical and scientific veterinary medicine, published at 409 East 84th street, New York. The fifth number is before us, and we can only say that in the selection of the subjects, and the character of the articles dealing with them, it will favorably compare with our best medical periodicals. It furnishes besides original contributions, editorials and reviews, a monthly abstract of the progress of comparative medicine and surgery, and may therefore prove of interest even to human practitioners of medicine. We notice that our articles on chicken cholera, and Pasteur's researches relating thereto, have formed the basis of an editorial in our cotemporary.

Local.—Dr. J. S. Jewell read a paper before the West Chicago Medical Society, October 11, entitled "Practical Observations on the Management of Nervous Diseases." The paper was discussed by Dr. H. M. Lyman and others. An abstract of this paper with its discussion will appear in the next number of the Review.

The 1880-81 session of the Woman's Medical College was inaugurated by an address by Dr. Charles W. Earle, on the evening of October 3. The college opens this year with an increase of twenty-five per cent. in attendance. Thirty-five matriculated. Two only of this number were unprovided with diplomas or satisfactory certificates of scholarship. This shows an unusually high order of qualification, and gives evidence of the progress of the much-needed reform in preparatory medical education. Between eighty and ninety students are in attendance at the college. Of these the junior class includes thirty-two, the middle class eighteen, and the senior class twenty, and about fifteen are as yet unclassified.

The first meeting of the Biological Society for the season 1880-81, was held at the Tremont house, October 6, President Dr. Lester Curtis in the chair. Dr. Plym. S. Hayes presented the report of the committee on oleomargarine. The report dealt chiefly with the results of chemical analyses of this substance, and the feasibility of its use as an article of food. The committee concluded that oleomargarine was as good and probably better as an article of diet than much of the

butter now in use. A possible danger in the use of oleomargarine is said to be from the introduction into the system of parasitic ova from the tallow from which it is made. The odor was given as the best distinguishing test between oleomargarine and butter. Dr. W. S. Haines criticized the name oleomargarine, saying that as no margarine entered into its composition, and as it was composed of olein and palmitin it should properly be called oleopalmitin. Dr. Hayes also read a paper consisting mainly of the results of the analyses made by him of certain specimens of vinegar. Dr. Hayes also reported an interesting case of xanthine calculus, and exhibited microscopic sections of the same. The Society then adjourned to meet November 3.

At the October 4 meeting of the Chicago Medical Society, Dr. F. E. Waxham read a paper on Urari. The author made the positive statement that urari would certainly control epilepsy, hysteria, chorea and hydrophobia, and stated that the probable reason of its inefficacy in the hands of many practitioners had been their fear of giving too large doses. Drs. Powell, Gradle, Bannister and others joined in discussion of this paper. Dr. H. M. Bannister then reported a case of peri-encephalitis, which presented at the autopsy interesting granulations of the pacchionian bodies. At the conclusion of the literary exercises, Dr. E. F. Ingals was elected treasurer of the society, vice Dr. F. H. Davis, deceased, and Drs. H. P. Merriman, Roswell Park and Lyman Ware were appointed a committee to draft resolutions in memory of Dr. Davis.

At the Chicago Medical Society meeting, October 18, Dr. R. U. Piper read a paper entitled Expert Testimony and the Microscopical Examination of Blood, in which he commented upon the unreliability of medical expert testimony, especially in the differentiation of human blood from the blood of the higher mammals, and the distinguishing of the blood of different human beings. Dr. Piper then detailed his method of transferring and distinguishing specimens of blood, and presented plates illustrating his method.

Dr. Roswell Park then presented a paper on Genital Irritation and Hygiene of the Genital Organs of Young Children. In young male children no lesions of the genito-urinary organs cause such a varied assortment of reflex phenomena as those connected with the prepuce, as for example, phymosis, preputial stenosis, preputial adhesions, and retention of smegma. The prepuce being relatively long at birth, retraction should be practiced, and strict cleanliness be observed from the outset. The author thus classifies the condition of the prepuce in one hundred and fifty-three cases of boys under nine years of age: I. Cases permitting easy and perfect retraction of the prepuce, 30 or 19.62 per cent.: II. Cases of slight or partial adhesion, with little or no retained smegma, 48 or 31.37 per cent.: III. Cases of complete or nearly complete adhesion without stenosis, but with retention of smegma, 36 or 23.53 per cent.: IV. Cases of preputial stenosis in which retraction was out of the question, and adhesions were only to be detected by using the probe, 39 or 25.48 per cent. Assuming this to be the general average, the author concludes that only one boy in five can easily and completely retract the prepuce. When preputial stenosis really exists, the prepuce should be either split along the dorsum, taking care to go back of the corona, or circumcision should be performed. When adhesions exist, they should be broken up. In the author's experience the operative measures had been followed by relief from nocturnal enuresis, infantile convulsions, general incoordination of the muscles of the lower extremity, excessive irritability and nervousness, frequent semi-priapism, indigestion accompanied by a sympathetic papular eruption, chronic diarrhœa and stunted development of the genitals. The author states that a large proportion of the cases in class IV in his enumeration suffered from inguinal hernia, caused probably by the continued muscular effort required to force the urine through a stenosed preputial orifice. The practicability of circumcision as a revulsive measure was also mentioned. Dr. Park then referred to the advantages of a normal prepuce. I. It is the natural condition. II. The avoidance of a fertile cause of nervous irritation. III. Infection from venereal disease is less probable, when the parts can be thor-

oughly cleansed. IV. Venereal disease, if it exist, can be more satisfactorily treated. V. Lack of cleanliness is said to be a predisposing cause of epeithelioma. The paper closed with a report of two cases of chronic diarrhœa, in boys of three and five years of age respectively. After the normal relation of the parts had been restored by operations, the patients speedily improve

The committee appointed to consider the feasibility of procuring a charter for the society, to attend to the revision and publication of the constitution, by-laws and list of members, and to have a historical sketch of the society prepared, made its report. A brief history of the Society prepared by Dr. N. S. Davis, was read by Dr. L. H. Montgomery and accepted. Dr. R. E. Starkweather was empowered to procure from the Secretary of State a charter for the society.

The Localization in the Brain of the Centre of Language has received a new support from the school of Charcot, which if not absolutely convincing, is at least truly ingenious. In the Progrès Médical (No. 37) we find a note by G. Ballet, an interne in Charcot's wards, on some hypnotic experiments of a startling nature. The experiments on this state to which we have referred several times, as produced recently in Haidenhein's laboratory, have also been carried on for some years by French observers. By actual experience Charcot has found that the results could be obtained in the most striking manner on girls suffering from occasional attacks of hystero-epilepsy. Due precautions were of course taken to detect imposition. In such a person a state of hypnotism may be readily induced by directing their gaze steadily to a small object. They soon appear to fall asleep. This condition is characterized by two peculiarities. In the first place there exists a hyper-excitability of muscles and nerves. The slightest tap upon a muscle, the merest pressure upon a motor branch produces a local contracture. In this manner the topography of muscles and motor nerves may be studied in the living subject without the use of electricity. The localization is so fine that as small a muscle as the posterior auricular may be contracted by pressure upon its nerve. But nothing like the cataleptic state is seen under these circumstances. In the second place, the subject retains the use of language. She can reply, count or recite, and can signify by gestures as well as by writing, that she understands when spoken to. During this condition the eyes are closed. An entirely different state of catalepsy is produced by forcibly opening the eyes of the subject. The over-excitability of muscles vanishes at once, while instead of this, every passive movement is retained as in natural catalepsy. In the second place, language and signs of consciousness disappear. By forcibly closing the eyes this condition gives way to the above described hypnotic state.

The point of capital interest, however, is the observation that by opening only one eye, the same side is thrown into catalepsy, while the other side of the body remains hypnotic. On account of the decussation of fibres, Ballet supposes that the light falling into one eye influences the opposite cerebral hemisphere, and of course the half of the body on the side of the eye. If now the left eye of the hypnotized subject is opened, the left side becomes cataleptic, while the right half retains the increased muscular excitability. The cerebral activity is not noticeably influenced. But if the right eye is opened the left hemisphere is affected and language and consciousness cease at once. The experiments have been repeated on many persons who did not know their object.

Reaction for Quinia.—It is somewhat troublesome to make a solution of chlorine in water for the purpose of testing for quinia. It is likewise difficult to keep such a solution very long without its undergoing such a change of strength as to render it unreliable. We have thoroughly tried a solution of bromine in water, which has been frequently recommended as a substitute for the chlorine water, and find it delicate and perfectly reliable. In all cases preference should be given to the bromine solution. It is easily made and keeps its power indefinitely.

CONTRIBUTIONS.

A CASE OF TRAUMATIC EPILEPSY—OPERATION, CURE.

BY GEO. F. FRENCH, A.M., M.D., MINNEAPOLIS, MINN.

F. R., twenty-one years old, was wounded in the head at the battle of Gettysburg, July, 1864, the ball striking the right side at a point corresponding to the parietal eminence. He was taken to the hospital in an insensible condition, from which he speedily recovered, but with incomplete hemiplegia of the left side. No operative procedures were instituted at that time. The hemiplegia persisted for four months, and after that time gradually but completely disappeared. He complained more or less constantly of headache, and in January, 1865, had a mild epileptic convulsion, succeeded in about three weeks by another more violent and prolonged than the first.

From this time to February, 1868, when I first saw him professionally, the epileptic fits occurred at short intervals, with varying degrees of severity. Not only was there mental obtuseness and impairment of memory, as is usual in confirmed epilepsy, but the moral sense became blunted. Previous to the injury his disposition was amiable, his character upright, and his habits exemplary. When I became acquainted with him in 1868 he was subject to attacks of dipsomania, and addicted to both lying and stealing.

To illustrate the condition of his mind: On one occasion he piled all the plates in the house in one towering heap on the dining-room table and deliberately tipped them over on the floor, as a playful joke. One day his mother, a boarding-house keeper, sent him with money to pay the monthly grocery bill. The whole sum was squandered in a drunken spree. When first summoned I found him suffering most intensely with headache and an acute pain referred to the location of the gunshot wound. Opiates failed to mitigate the pain in any appreciable degree; during the exacerbations of pain he was often delirious and maniacal.

Believing the brain was irritated by compression resulting from the gunshot wound, I resolved to trephine and elevate. This decision being sanctioned by several consultants, on February 22, 1868, I performed the operation, removing with trephine and saw a large, triangular section circumscribing the wound.

Contrary to my expectation the under surface of the section of skull removed exhibited no spicula or projection to account for the symptoms, and yet the operation so far relieved the tension that the pain and headache immediately vanished, and did not return. No inflammation followed, and in a few weeks he was walking about the town.

From that time to the present, a period of twelve years, there has been no return of the convulsions or headache, but he has enjoyed good health and worked industriously as a harness-maker.

The most remarkable feature of the case is the recovery of the memory and the moral sense. I have observed him during the twelve years which have elapsed since the operation, and a more industrious, temperate and moral young man cannot be found.

A SMALL LIPOMA ON THE ANTERIOR LABIUM UTERI AS THE CAUSE OF STERILITY.

BY DR. OSWALD STROINSKI, CHICAGO.

Mrs. N. M., an English lady, aged 28, has been married for seven years, and, although her husband is in perfect health, has had no children. The healthy and intelligent lady consulted me as regards the cause of her sterility. She has had no sufferings like those complained of by sterile women; she menstruates regularly and without difficulty, and is much attached to her husband, who had two children by his first wife. The examination of the sexual organs revealed no anomaly, but perfect development and regular forms. The uterus, of normal size, was in the virgin position (antiversion flexion). Its cavity could easily be entered by the probe; there existed no inflammation in or around the organ. Bi-manual palpation showed the ovaries normal. The heart was likewise perfectly healthy; no nervous affection existed. Almost willing to end the examination as perfectly negative, I discovered finally an apparent elongation of the anterior part of the neck of the uterus. On examining with Sims' speculum, this proved to be due to a small, movable tumor at the edge of the anterior lip, which, on pressure with a rod, could be easily forced into the external os, closing it like a valve. On releasing the pressure the tumor returned to its former position, simulating an elongation. I excised the small tumor, which the microscope showed to be a lipoma. Within three months pregnancy occurred, leading to the birth of a healthy child.

This case proves strikingly that the fruitful coitus does not occur in the manner taught by Beigel and his school. Beigel claims that the pouch-like portion of the vagina next to the cul-de-sac of Douglas, serves as a receptacle for the semen, and that the cervix

subsequently dips into this pouch, and thus permits the spermatozoa to enter its cavity. This view is not supported in view of the fact that we frequently see pregnancy occur in spite of retroflexion, which, according to Beigel, should be a mechanical obstacle. It is, however, contradicted flatly by the present case, in which the cervix could dip freely into the pouch, but still no pregnancy occurred till after the removal of the tumor. The lipoma evidently acted as a valve during coitus. The case shows that the pregnancy could only occur when the semen was directly injected into the cavity of the uterus. It supports the old view of the continuity of the cavity of the cervix and the male urethra, and confirms what I have previously said* about the action of the retractorus uteri.

A point of medico-legal interest may yet be referred to. When rape is attempted no pregnancy will follow according to our theory, in the case of a normal virgin uterus, since it is only in the erected state of the uterus that the telescopically elongated cervix can assume the proper position relative to the penis. If, hence, pregnancy is claimed to be the result of rape, the normal position of the uterus will contradict the story of a forcible attempt, and will show that consent was given. But in women who have passed child-bed the uterus has changed its position, and is so situated that conception may occur without erection of the organ.

CORRESPONDENCE.

New York, Oct. 10, 1880.

OPENING OF MEDICAL COLLEGES.

The winter session of the University medical department was opened on the evening of Sept. 28, by an address on the relation of clinical study to medical progress, delivered by Prof. Alfred L. Loomis. After alluding to the present century as being a period of reconstruction in medicine as well as in the other physical sciences, and showing from statistics that the advances in medical science during the last fifty years had lengthened the average human life 25 per cent., and reduced the rate of mortality 30 per cent., Dr. Loomis proceeded to trace the progress (I) to the discoveries of the allied sciences of chemistry and microscopy, (II) to the study of pathology in connection with symptoms, and especially (III) to new methods of clinical study which make diagnosis at present a matter of certainty. The brilliant results of clinical observations made by Laennec, Bright and Marshall Hall, were mentioned as proofs of the theory that clinical study has been the companion of all medical progress, and the neglect of the study of details, and the fondness for hypothesis during the middle ages were cited as causes of the stationary position of the science at that time. The speaker then traced the history of clinical instruction from the time of its introduction by Boerhaave, of Leyden, down to the present day, showing how eminently practical were all the discoveries and deductions made by its assistance, especially since the revolution of ideas regarding vital action which followed the microscopical study of cell action first made in 1830. After insisting upon the importance of clinical observation in every department of medicine, Dr. Loomis concluded by describing the peculiarities of a good clinical teacher, and the requirements of a student. The first he considered to be accuracy in observation, wide information, facility in expression, and devotion to his work. A clinical instructor must draw the line between the known and the unknown clearly, must encourage inquiry rather than enforce belief, must give to others the rules which have guided him, and above all must classify the facts of disease according to their importance, so that the prominent features shall be evident, the less important ones thrown into the background, and thus a vivid picture, drawn in perspective, be placed before the student which he can appreciate at a glance. Upon the student the importance of enjoyment of his work was impressed. He was urged to cultivate the special senses; to watch the methods of his teachers, and observe the facts elicited by them, rather than the deductions from those facts. He was told to study the phenomena of disease, its natural history, and its diagnostic points with care, and to use every aid at his command. The necessity of work, constant, unremitting, and thorough work, was dwelt upon as the only condition of success; and an attractive picture of the result of complete devotion to his science presented to the aspiring student. The address closed with a timely warning to innocent rural strangers against the dangers of life in the metropolis. The address was listened to with interest by a large audience attracted by the choice of a subject upon which no one in the city was more competent to speak than Dr. Loomis. He, himself, stands first among clinical instructors, and his clinical lectures are attended by a larger number of students and practitioners than those of any other lecturer in New York. It was therefore somewhat of a disappointment that the lecturer should have dwelt so largely on the historical side of his subject, and touched so lightly upon the practical part.

The opening exercises of the College of

*Baierisches Aerztliches Intelligenz-Blatt.

Physicians and Surgeons, took place on the first of October, when Prof. E. C. Seguin gave the introductory address, choosing as his subject the cultivation of specialties in medicine. Dr. Seguin said that the most practical question to the student or graduate to day is, "shall I be a general practitioner or a specialist?" While thirty years ago there were few or no specialists, there seems at present to be no room for the general practitioner. The rapid growth of specialties, and the claims of specialists to superior knowledge, and greater success in treatment, has aroused a spirit of hostile criticism, which has been not a little aided by envy of the large gains of certain well-known specialists. In the face of such criticism Dr. Seguin maintained that the growth of specialties was of the greatest service to the profession and to the public. Such a growth was normal and inevitable, in view of the tendencies of the age. Its causes were I. the rapid progress in all departments of medicine, which so widened the scope of the science that the facts of all the various branches could not be thoroughly grasped by any one mind. II. The fact that no time remained for original research in any one department, if the physician attempted to keep abreast of the progress in all. III. The assistance rendered to medicine by the advances in physics and other sciences, which by furnishing instruments such as the ophthalmoscope, laryngoscope, microscope, &c., opened suddenly a new field to be explored and occupied. IV. The tendency to give attention to the amelioration of chronic diseases which could not be met by one engaged in general practice. V. The popular demand. The advantages of special study were next considered, and it was shown that the benefits accruing to the profession in the branches of pathology, symptomatology, diagnosis and prognosis, were as great as those gained by the public in the more practical point of treatment. The study of specialties furnished a class of consulting specialists, of whose services general practitioners were very often in need. Each specialty can point to important discoveries in its sphere, which are useful to all branches of the science. And nowhere are more enthusiastic workers to be found than in the specialties. But Dr. Seguin admitted that a warning against certain intellectual dangers was necessary. In the specialties there was danger of falling into routine practice; of becoming insensible to the progress in the specialty; of becoming satisfied with results and unwilling to experiment further. There was also a tendency to acquire a belief in the specific use of drugs, and allied to this, a kind of symptom worship, which led to the employment of favorite remedies on the discovery of the favorite symptom. Thus it followed that few specialists investigate each case with sufficient care, or base the treatment on general medical knowledge, without which a rational treatment can not be constructed. And when these dangers were not avoided, it was admitted that the complaint of the narrow-mindedness of specialists might be valid. The Doctor then concluded with a few words of personal advice to the young men of the audience. He said, do not decide to become a specialist at once. Do not "take up a specialty." Aim to cultivate proficiency in a general way by reading, study, and hospital experience. You cannot be too well grounded in general practice and therapeutics. There is a natural growth into a specialty, as one's taste or circumstances may lead one to pursue one line of work rather than another. Do not let fashion in specialties determine your choice, for pseudo-specialists are more harmful than any other class of men. Remember that specialists can only succeed in large cities, and the vast majority of the profession must necessarily practice in towns or in the country, and the honors of such general practice are not less worth striving for than those of the specialties. Remember finally that there is a personal element in all success, and the mere fact of being learned in a specialty is insufficient without well trained social and moral qualities, to secure a position of usefulness to the profession and to the public. Although not a brilliant effort, the address contained so much that commended itself to the common sense and sober judgment of the audience that it was pronounced a very able argument.

The Bellevue school began work without any formal exercises, though the initiation of a new system of nine months' study offered an opportunity for a public discussion of reform in medical education which one might have hoped to see improved. That subject, however, seems to be carefully avoided by those who should be most concerned with it, and it is evident that its discussion must be carried on (where discussion can be most effective) by the press. It is needless to say that all the medical schools have opened with a large number of students, since none are refused admittance at their too widely opened doors.

TRAINING SCHOOLS FOR NURSES.

The graduating exercises of the training school for nurses connected with Charity hospital, which took place October 1, serve to bring again into notice the admirable system of education for nurses pursued in the various hospitals of this city. There are at present

three such schools, the largest and oldest being in connection with Bellevue hospital, a smaller one under the direction of the commissioners of charities and correction at Charity hospital, and the third supported by the society of the New York hospital. As the methods of training are alike in all, the Bellevue school may be selected for description.

The necessity of a set of attendants in the hospital to whom the immediate care of the patients could be entrusted with confidence, and whose observations regarding their condition, and whose ability to render adequate assistance in case of need could be relied upon by the physicians and surgeons, led to the organization of a society eight years ago, known as the training school for nurses in connection with Bellevue hospital. The object of the society, as defined by its charter, was to be "the selection, education, training and providing of suitable persons as nurses for the sick." Generous patrons were found without difficulty to aid in the attainment of this object, and the success of the plan was speedily assured. After eight years' work the society finds itself in possession of a large and commodious building for the accommodation of the nurses, with able officers, managers and instructors, with an amply filled treasury, with a well organized system of education and training, and with an ever increasing number of pupils. Applicants for admission are obliged to present credentials from clergymen regarding their moral character, and from a physician testifying that they are in sound health. They are then subjected to a preliminary examination in reading, penmanship, arithmetic and English dictation, and having passed, are received for a month on trial, during which time the superintendent decides upon the fitness of the person for the work. If retained by the superintendent, the nurse then enters upon a two years' course of training, during which she is entirely under the control of the officers of the school. The course of instruction divides itself into two parts, a theoretical and a practical, of which the latter is the most thorough and efficient. The theoretical part consists of lectures, demonstrations (anatomical and surgical) and recitations from text books, and one hour a day is devoted to this part of the course. The lectures are delivered by members of the staff of the hospital, and are upon anatomy, physiology, the care of the sick, medical and surgical emergencies, &c. The recitations are conducted by the assistant superintendent, twice a week in two classes. Lessons are also given in bandaging by an expert. As the course is a progressive one, during two full years, a considerable amount of ground is gone over. Upon the practical training the nurse enters at once after her admission to the school. For the first year she serves as assistant in the wards of the hospital, being on duty from 8 A.M. to 8 P.M., with one hour off for dinner, and an additional hour for exercise and rest. She also has a half of Sunday, and a vacation of two weeks is allowed each year. While on duty she receives instruction in the dressing of wounds and blisters; the application of poultices, cups and leeches; the administration of enemata, and the use of the catheter; the management of trusses and pessaries; methods of friction and massage; the care of helpless patients, giving baths in bed, dressing bed-sores &c.; bandaging; methods and means of ventilation and disinfection; and the preparing and serving of delicacies for the sick. She is also taught to make observations and written reports of the temperature, pulse, respiration, the state of the secretions and expectoration, condition of wounds, effect of diet or stimulants or medicines, and to learn the management of convalescents. After the first six months she may be assigned to night duty, during which she is obliged to make a written report every two hours of the condition of patients seriously ill. During the second year she holds the position of head nurse of a ward, or may be sent out by the superintendent to private cases. At present all the women's wards, and several of the men's surgical wards are under the care of the nurses, from two to four being required in each ward, according to its size. Nearly fifty nurses are on duty in the hospital all the time, and they are transferred from medical to uterine, maternity and surgical wards, in such manner that every class of patients is seen by each nurse at some time during her course. In addition to their board and lodging at the school, and the training given them in the hospital, they are paid $9 per month for the first year, and $15 per month for the second year—it being understood that all other compensation received by them for their services during these two years shall be paid into the treasury of the society. The regular charge for a nurse furnished by the school is $16 per week, or $3 per day. On leaving the school they are required to pass an examination before receiving a diploma, and suitable prizes are offered for superior attainments. It will be seen by this review that the training is a very careful and thorough one, and it is as fully carried out in practice as it is described on the pages of the reports of the society. The result is evident to any one who compares Bellevue under the present system with the Bellevue

of former days. The neatness of the wards, the careful and interested attention to the wants of the patients, the willingness to follow minutest directions of the physicians, and the intelligent observations and reports both night and day, combine to attest the efficiency of the training and the earnest endeavors of the nurses. And no one who admits the extreme importance of careful nursing in many cases can fail to appreciate the advantages to any hospital of such a training school. But it is perhaps from individual practitioners and from private families that the most cordial commendation of the skill of the trained nurse comes. It is no little aid to the physician to feel assured that his directions are being faithfully carried out in his absence, and that his patient is free from those many petty annoyances attendant upon ignorant nursing. The gratitude of the patient and his friends for the attention of a cheerful yet quiet nurse, upon whose capability and watchfulness they can rely during a long and tedious convalescence, as well as at critical moments, is shown by the many testimonials which have been sent to the managers, and which are published in their reports. As competent nurses for private patients are furnished at any time by application to the school, it has become widely known throughout the city, and is everywhere spoken of with the highest praise. Its graduates are in constant demand, not only as nurses, but to fill positions as matrons of hospitals and charitable institutions of various kinds. Thus the practical value of the training school system has been fully demonstrated in this city, for the success of the Charity and New York schools has been as marked as that of Bellevue. At the recent graduating exercises at Charity eighteen nurses obtained diplomas, and their places are already filled in the school, so numerous are the applicants for admission. The last class at New York numbered 12, while the Bellevue school turned out 30 at its last commencement. There are at present about 70 in attendance at the Bellevue school, and they are all employed constantly, either in attendance in the hospital wards, or upon private cases. Thus it is evident that the demand is greater than the supply, a fact which speaks loudly in favor of the training school system. Its introduction into other cities cannot be too strongly urged, since the advantages which it offers to both physicians and patients are so manifold and important.

S.

New York, Sept. 30, 1880

The fifth annual meeting of the American Academy of Medicine was held in Manning Hall, Brown University, Providence, Rhode Island, Sept. 28, the president, Frederick D. Lente, A.M., M.D., in the chair.

The first business was the election of fellows. The council recommended the following gentlemen, who were balloted for and duly elected: James Chester Morris, Philadelphia; H. Webster Jones, Chicago; Chas. Gilman Smith, Chicago; P. S. Connor, Cincinnati; Cornelius Rea Agnew, New York; Chas. O'Leary, Providence; Robert Amory, Brookline, Mass.; I. W. C. Ely, Providence; Theophilus S. Hartley, Ridgway, Penn.; Lloyd Morton, Pawtucket, R. I.; Albert E. Harris, Providence; Geo. Whipple Porter, Providence; Theodore S. Wing, Susquehanna, Penn.; Audley Austen, Brooklyn; Jos. M. Turner, Brooklyn; Lemuel I. Deal, Philadelphia; Nathan Allen, Lowell; Wm. Elmer, Jr., Trenton; Chas. Carroll Lee, New York; Wm. Elmer, Bridgeton, N. J.; Lewis D. Harlow, Philadelphia; Theophilus Parvin, Indianapolis; Albert H. Smith, Philadelphia.

Some minor changes in the constitution were then proposed, on which action will be taken at the next meeting.

Drs. L. H. Stiner, R. J. Dunglison, and P. D. Keyser were appointed a committee to have the certificates engraved and printed. The President also appointed a committee on nomination.

Dr. John S. Billings, of Washington, then introduced a motion to the effect that the secretary take measures to obtain a digest of the laws of the several states of the Union and of the dominion of Canada bearing on the subject of medical practice, which, after some debate, was adopted.

An evening session, to hear the address of the president, was held at 8 o'clock, which was opened with prayer by the president of the university, Dr. Robinson, after which Dr. Lente delivered an address occupying an hour, which was received by the audience with great satisfaction, and considered by the majority of the fellows as accurately expressing their views. As this will soon be published *in extenso* by the Academy and distributed to the medical journals I do not give any synopsis.

At the morning session Sept. 29, the treasurer's report was read, and showed a surplus over expenses of between two and three hundred dollars. The nominating committee reported Prof. Edward T. Caswell, of Providence, for president, and he, with the other officers nominated, was duly elected. After this Drs. Stiner, Elisha Harris, Ryerson, Sell, Traill Green, the first president of the Academy, Dr. Lente, and others, made remarks on the subject of medical education and the future work of the Academy, which

then adjourned to meet in New York City the third Tuesday in September, 1881.

It may be well to mention that the special objects of the academy, as set forth in its constitution, are (I) to bring those who are alumni of classical, scientific, and medical schools into closer relations with each other; (II) to encourage young men to take regular collegiate courses of study before entering upon the study of medicine; (III) to extend the bounds of medical science, to elevate the profession, relieve human suffering, and to prevent disease. MEDICUS.

COLOR-BLINDNESS.

BOSTON, MASS., Oct. 1, 1880.

In your issue of Sept. 5, 1880, you speak of my report of the examination of medical men for color-blindness. My special purpose in testing members of the American Medical Association and Fellows of the Massachusetts Medical Society, was to show that education had no effect in altering the chromatic defect when congenital. This has been, and still is, so often doubted, from simple ignorance of the whole question of color-blindness, or from mistaken observation and want of weighing evidence, etc., that I thought it necessary to push on with my examination of educated adults. Besides my fellow physicians, I have recently tested 400 of the members of the American Association for the Advancement of Science, during their Boston meeting, finding sixteen color-blind. The necessity of large numbers to determine the true percentage of color-blindness among males is readily shown by my finding only 6 among 195 of the American Medical Association, and 16 out of 270 of the Massachusetts Society, whilst the 400 of the American Association for the Advancement of Science had 16, just 4 per cent. The gentlemen who tested 745 members of the British Medical Association at the recent Cambridge meeting, found only 15 marked cases, though they speak of "four others with feeble chromatic sense." Tabulating these results we have:

Am. Med. Ass.	195	6	color blind.
Mass. Med. Soc.	270	16	"
Am. Ass. Adv. Sci.	400	16	"
British Med. Ass.	745	15	"
Total	1610	53	"

A percentage of 3.29+.

In testing the 27,000 school children of Boston I not infrequently ran through one or two classes of fifty or sixty children without finding any color-blind, whilst the next brought up the percentage. The same even with the whole schools. I remember out of seven absentees of one day finding the next two color-blind.

When testing my professional brethren I did not include those I knew by previous examination to be color-blind, nor did I include those whom I knew to be defective and who stayed away. I would not at all imply that the defect is more common among physicians. This would be simply ridiculous. Nor would I imply, as you question, that medical men "are more stupid and slow than others." They did give me more trouble and take more time, which bystanders would perhaps misinterpret, but which I diagnosticated as the caution natural to the profession.

Your practical point as to whether surgeons of the Marine Hospital Service who are to test pilots under the recent Treasury orders have themselves normal color-sense, is well taken. I am informed that one at least of the number is color-blind. By the enclosed you will see that this order has been modified and that pilots can be examined by "any respectable resident physician," if out of reach of the Marine Hospital Surgeons. It is upon such evidence that the United States Inspectors are to give or withhold a pilot's license. But even if a Marine Hospital Surgeon, or "any respectable resident physician," says a pilot is color-blind, the United States Inspectors, as in a case within my knowledge, need but change the man's papers to "Master," and, as *he* does not have to be tested by the Treasury order, the man can go on imperilling the lives of his passengers as before, not to speak of any property loss.

This present lack of system and recognition of the whole question will be greatly done away with when the proposed international commission, a bill for which is in Congress, has by investigation, study and comparison, brought out the points for governments to instruct their departments upon. The petition, the committee's report and their bill have been published.

The commission has recently been by vote recommended by the American Ophthalmological Society, the Ophthalmological Section of the British Medical Association, and the International Ophthalmological Congress just met at Milan. This you will see from my enclosed circular, asking for information, etc., from those engaged in the work of testing, either officially or otherwise. I would say I am receiving interesting and important replies to this circular, but recently distributed.

I remain respectfully yours,

B. JOY JEFFRIES, M.D.

OUR exchanges announce the death of Prof. Buhl, known for his researches into the histology of tubercle.

REVIEWS.

THE BRAIN AS AN ORGAN OF THE MIND. By H. Charlton Bastian M.A., M.D., F.R.S., etc., with 184 illustrations. New York: D. Appleton & Co.

The increased interest which has of late been manifested by philosophers, theologians, physicians and the educated laity, in the relation existing between the brain and the mind, has stimulated the literary zeal, both of original investigators and compilers, to an extent that has rather overwhelmed those accustomed to plod perseveringly through the literature, with the number of works on the brain that have consequently appeared. Most of the latter are substantially repetitions of each other, the same wood cuts and the same anecdotes illustrating the relations of mind to instinct in the lower animals; the same old saws and stereotype argumentation, are recognizable in Richet and Charcot, Ferrier and Solly, Carpenter and Bain, and only the literary dress is more or less modified.

"Wenn Kœnige bauen, haben die Kärrner zu thun," the bone thrown the class yclept compilers, by the great monographists of Germany and France is still being industriously gnawed in England. Few, however, succeed in getting at the marrow, and the work before us is an example of this general want of success.

Dr. Bastian is well known as a biologist and clinician. His works entitled "The Beginnings of Life" and "Paralysis from Brain Disease," are to be found in almost every physician's library. It is to be presumed that the present work, to which he has evidently devoted many years of his life, will also find a place there, and for this reason we may be required to give it a more than ordinary notice. Especially do we propose in the interest of those who may purchase it, to call attention to some errors whose presence in it seriously impairs the value of the work as a systematic treatise and work of reference.

In the description of the human brain, which is meagre and unsatisfactory, the author chiefly follows Turner and Broadbent, unaware that the latter has merely paraphrased Meynert and Luys, two fundamental authors with whom Dr. Bastian has clearly not familiarized himself. In regard to the anatomy of the lower animals, Gratiolet, Leuret, Owen and Gegenbaur, have evidently constituted his principal authorities, and we cannot but regret that the views of Huxley do not seem to have been assimilated, as they deserve to be; the segmental homologies are therefore but inadequately dealt with.

The frame of the essay begins with a chapter on the origin, the raison d'étre, as it were, of the nervous system, and its essential structural elements. It then comprises a sketch of the nervous system as found in the invertebrata and vertebrata, interlarding the different descriptive chapters with disquisitions on the "Scope of Mind," "Reflex Action," "Unconscious Cognition," "Instinct," "Nascent Reason, Imagination and Volition." The superstructure logically evolved from these preliminary considerations, consists of the embryonic development of the human brain, its adult structure, the relations between the human and anthropoid brain, and concludes with a discussion of that dead issue, phrenology, the mental substrata, the symbolic processes, and an appended chapter on the muscular sense.

It cannot be our purpose to review within our present compass controversial questions that have been, and will be, discussed over and over again, and we shall therefore limit ourselves exclusively to facts. Page 3, one criterion between vegetable and animal life is stated to be that "plants do not move at all in search of food," a statement that will as correctly apply to the compound ascidians as to the fly trap. Page 10, "Ciliated infusoria, rotifers and other forms of animal life of different degrees of complexity, may take origin in such encysted masses of protoplasm, forming the resting stage of previously active amœbæ." This is a most revolutionary revelation to us, and at utter variance with everything known on the subject, besides being very ambiguously expressed. It is not, as claimed on page 26, an ascertained fact that all centripetal fibres must pass through both sensory and motor cells before being projected back to the periphery as motor fibres. The statement (p. 28) that the nerve tissues are in the main composed of "phosphoretted fats," is highly inaccurate, and has been corrected in every reliable text-book on organic chemistry and physiology. Hoppe-Seyler especially says: "Fats do not occur in the brain under normal circumstances."

Throughout the volume the olfactory lobes and bulbs are consistently confounded with each other, though they are altogether distinct structures, witness pp. 118, 267.

The cerebellum is not "larger among serpents," to become still more so in turtles and crocodiles, than in lizards. The snapping-turtle has one of the smallest, the sea-turtle one of the largest, and some lizards, like the psammosaurus and iguana, have a far better developed cerebellum than any snake; the latter animals, in fact, have them uniformly quite small.

From the statement on page 258, it would appear to the reader as if the fifth ventricle, so called, were absent only in birds, reptiles, amphibians and fishes, whereas it is absent in the vast majority of mammals also, and is a distinctively human feature shared only by the highest apes!

The statement that the hippocampus major "overlaps" the corpus striatum in the marsupials, should have been explained; otherwise it confuses the student.

After describing the middle and posterior commissures, Dr. Bastian proceeds to say, "we now come to the 'commissures' met with only in the brain of mammals," leaving the student to infer that the preceding are found in the brains of vertebrates lower than mammals, whereas the middle commissure is essentially a mammalian feature, and not found in fishes, reptiles or amphibians.

Page 275, it is stated "the thickness of the layer of ganglionic grey matter on the surface of the brain undergoes a gradual increase among the vertebrata; the layer is so thin in fishes that the surface of the cerebral lobes appears almost white to the naked eye." So it does in reptiles and many mammals also, not because the layer of grey matter is thin, but because its outermost cell-barren sublayer is very thick!

The book is full of vague or unexplained statements such as this from p. 116; the optic lobes in osseous fishes are united by "one or more transverse commissures."

The omissions of important discoveries and views of cotemporaries are countless. The researches of Schmidt on the structure of the ganglionic corpuscle which would have lent strength to the proposition on page 39; the great embryological criterion of the vertebrate nervous system as contrasted with that of other animals, which would have made clear the foggy description of pages 111 and 112; the researches of Wilder on the homology of the cerebellum, of the reviewer on that of the corpora quadrigemina, of Stieda and Maclay on the brain of the ichthyopsida; those of Mihalkowitz on the pineal gland; the current views on the pituitary body; the homology of the aqueduct of Sylvius with the mesencephalic ventricle of lower vertebrates, and numerous other important matters, are not even touched on. The imperfect and misleading diagrams of Mivart, representing the cerebral ventricular derivation, have been selected in preference to those of His, and the classification of the cranial nerves is adopted from Willis, and not from Sœmmering.

Luys, Meynert, Huschke and Burdach have been interpreted at second hand and indifferently. The works of Forel, Flechsig, Gudden, Fritsch and Stilling, Dr. Bastian has not paid any attention whatever to.

The illustrations are good, bad, and indifferent; some should not have been admitted in a work published in 1880, for example the figures 21, 68, 71 and 76, which are antiquated, and 81 from Solly, which is a gross caricature, while if figures 137 and 138 (after Turner) do actually faithfully represent the gyri of a typical Scotch brain, we do not think that Scotsmen have reason to feel flattered. Figure 184 is our old friend, an illustration after Prevost intended to illustrate the seat of the lesion in a case of aphasia. This immortal cut (we are afraid to say in how many works it has seen service) is beginning to evince symptoms of decay, and the prints now would do excellent service as illustrations of diffuse and multiple ramollisement of the entire cortex, complicated by a clot overlaying the left cerebellar hemisphere.

The style of the writer is as usual with him, excellent and clear, and he has succeeded in presenting the numerous facts and theories dealt with in the work in a happy and entertaining manner. We regret profoundly that in view of all these good qualities of the writer, our final criticism on his volume must be unfavorable. In our opinion this is just such a work as any plausible writer might complete without ever having himself dissected a brain, purely on the strength of his library and plates. And in the present instance, even the bibliographical resources of the author do not seem to have been exhaustive. The work does not adequately represent the state of our knowledge of the brain as it exists to-day, nor even as it existed five years ago. The psychological speculations present nothing new, but they incorporate very fairly the ideas of Spencer, Maudsley, Bain and Carpenter. A notable omission consists in the absence of any full reference to the researches of Wundt, the best on the subject of psychological physiology extant.

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YELLOW FEVER; ITS NATURE, AND EPIDEMIC CHARACTER CAUSED BY METEOROLOGICAL INFLUENCES, ETC. By Dr. Charles Spinzig, 1302 South Fifth St., St. Louis, Mo. St. Louis: Geo. O. Rumbold & Co., 1880.

We have before us a work of 200 pages, with the above title, the result of several years' study and observation by a well known physician of St. Louis. It is especially deserving of notice because it combats the generally accepted notions as to the *infectious* nature of the disease, and ascribes its occurrence and

ravages solely to meteorological conditions. The author first states that the prevalent doctrine that the fever does not occur except the annual mean temperature ranges from 64° to 67° F. is incorrect, and adduces numerous instances to prove it so. He next attacks the "infection theory," and, it must be said, shows its many weaknesses if he does not totally disprove it.

Referring to recent epidemics, he shows how this most "infectious" disease failed in multitudes of cases to infect even where every condition was favorable; how in many places it actually broke out several days before the advent of the infecting substance to which its causation was, in conformance with the pet theory, ascribed; how Memphis was rigidly quarantined against the approach of the steamboat "Porter," and yet was nearly devastated subsequent to its passing, while just across the river the boat landed three of her suffering crew, and yet no fever prevailed there. In other words, he shows in a striking way the utterly fallacious logic of those who have reasoned that the disease can never originate *de novo*, but must always be accounted for by a "theory of infection." He also inveighs most bitterly against the spurious scientific (?) methods of many so-called investigators, and the aptness with which they conceal their ideas (or lack of ideas) with high sounding words.

As defining part of the ground which our author takes, we quote the following: "The regions where yellow fever is apt to prevail within the United States are nearly exclusively found on low and alluvial soil, and the localities where the fever is most liable to reoccur are allied to the climate of the subtropical zone," the same being true also of other countries. (p. 38). This assertion is backed up by numerous data.

Still following the text we find this paragraph: "In the process or the gradual development of yellow fever, or in the development of its predisposition, this law of nature is signally verified; the meteorological influences of the year previous decidedly exhibit marked variations at those localities subsequently suffering, causing in the constitutions of 'susceptible' individuals structural changes of the glandular system, and an altered state of the blood and lymph upon which the irregular meteorological conditions of the year and season of the epidemic react destructively, etc." (p. 63). Tables and weather statistics are freely introduced in confirmation of these statements. Regarding the pathology of the disease the author's views are of great interest. Reduction of atmospheric pressure below the mean, with consequent expansion of the vital constituents and fluids of the body, in conformance with the laws of physics, figure as prime factors; elevation of temperature above the mean, and deficiency of rainfall below the mean, are also influences of great importance; and the records of infected localities prove that at least two, and usually all three, of these conditions obtained before and during the outbreak.

From the nature of these conditions and resultant changes in the vital constituents of the body "the physiological functions of the liver were so severely enroached upon that the hepatic chemistry failed in the hydrolitic action to separate mucin from glycogen, and the lesions of the blood, augmented by the consecutive structural lesions of the liver, find their *forced* origin, from which results the development of yellow fever in summer and autumn months, at which time the meteorological variations augment the morbid reactions." (p. 93). Mortality, recovery and eupathy depend upon the degree of alteration which the abdominal glands (from which the circulating fluids derive their composition) have undergone, and this, in different individuals surrounded by the same conditions, will depend upon the "difference in the scope of the biological sphere of different persons." (p. 34).

Holding such strong views as he does against the doctrine of infection, the author, as may be imagined, deals mercilessly with the matter of quarantine and the authorities which uphold it. He quotes at length from and endorses an article in the *Chicago Medical Gazette*, of January 5, 1880, criticising the scheme of a National Board of Health. He exposes the inhumanity and even barbarity of any system of quarantine which could be considered effective, and while he proposes no efficient prophylaxis, (as none can be proposed if his views are correct), he does not hesitate to denounce the general inutility of the whole system.

We regret we can not do more than give a general view of this work. The author's ideas are, if not new, at least not generally received. They are, however, set in such a massive framework and background of facts, gathered from a great variety of sources, that they must command respect, and they deserve the closest study of every clinician and sanitarian. Whether or not they are destined to revolutionize our present opinions concerning a devastating disease and its treatment remains to be seen.

We heartily commend the work to the attention of all thinkers and observers. Its typography is neat, its English occasionally defective or obscure. R. P.

I. Minutes of the Twenty-Fourth and Twenty-Fifth Annual Meetings of the State Medical Society of Kentucky.
II. Transactions of the Medical and Chirurgical Faculty of the State of Maryland. Eighty-Second Annual Session,
III. Transactions of the Minnesota State Medical Society, 1880.
IV. Transactions of the Medical Society of the State of Tennessee, at its Forty-Seventh Annual Meeting, 1880.
V. Transactions of the State Medical Society of Arkansas, at its Fifth Annual Session.
VI. Transactions of the Indiana State Medical Society, 1880.

I. KENTUCKY.

As the title of this pamphlet indicates, it is a record of the minutes of the society. It includes the titles of the scientific papers which were read, an account of all the business proceedings of the society, a list of all the officers, the annual address of the president, and matters of like interest. The sensible plan adopted by this society, furnishes a worthy example for all State societies. Under this arrangement the author of the paper is at liberty to publish the same wherever, however and whenever he pleases. Bad and indifferent papers will therefore come to an end in the making and reading; useful papers will speedily find their way into the columns of medical journals, where they will be much more widely circulated than if buried in the chaff of the transactions such as a State medical society generally has reason to be ashamed of.

II. MARYLAND.

The word "chirurgical" which appears in the name of this society, is a relic of an old Anglo-Hellenic barbarism. It means surgical. In turning the pages of the volume, one finds them fully up to the average of State society transactions.

III. MINNESOTA.

A very full abstract of these proceedings was published in the July 20 number of the Review. The society shows the characteristic Minnesota enterprise, in the prompt collection and publication of its transactions.

IV. TENNESSEE.

This volume contains a dozen papers, the substance of which may be found in most of the text books on the subjects of which they treat, an acccount of the proceedings, the constitution and by-laws, and the code of ethics.

V. ARKANSAS.

The part which relates to the scientific proceedings is very meagre, embracing only about sixty pages. It was perhaps condensed by a judicious publishing committee, from what would have made a much larger volume, as the papers published are of not inferior quality.

VI. INDIANA.

Among the articles of merit may be mentioned the address of the president Dr. S. R. Weist, of Richmond, on the prevention of disease, which shows him to be a conservative and a scholarly man, a paper by Dr. William R. M'Mahan, on the icteric form of pernicious fever, and a paper by Dr. S. C. Weddington, on kakonemia. A practical paper on gall-stones was contributed by Dr. C. B. Stedman. Human longevity is the title of a scholarly and well arranged paper, by Dr. W. S. Haymond. A paper by Dr. James Lamb, of Aurora, on diseases of the cervix uteri, carries conservatism, both in the matter of pathology and treatment, so far as to make his communication of little value to one who has read the gynæcological literature of the last five years. He has heard of certain novelties which he apparently dares neither to accept nor reject. State sanitation is treated with considerable ability, by Drs. J. D. Gatch, and J. W. Hervey and Thad. M. Stevens. The transactions include several other excellent contributions and reports of cases, and is altogether of a sufficiently high grade to excuse the society from having published them in a volume. This volume is superior to those which have lately appeared from the publishing committees of other state societies in the Mississippi valley.

Primaparous and Multiparous Labors.—The St. Louis Medical and Surgical Journal, October 5, 1880, abstracts a paper which appeared in the Obstetrical Journal of Great Britain and Ireland, and in which Dr. J. G. Swayne, of Bristol, with a view to the solution of the question whether first-labors are more dangerous than others, presents a report of the analyses of 1022 cases of labor in private practice, 231 of which were primiparas and 791 multiparas. Among the former he lost none, while five deaths occurred in the latter class. The infant mortality was 7.8 per cent. with primiparas and 5.9 per cent. with multiparas. Dr. Swayne, hence concludes, that the danger so far as the life of the mother is concerned, is greater to the multipara than to the primipara.

THE ARMY.

Happersett, J. C. G., major and surgeon. Assigned to duty as post surgeon at Ft. Brown, Texas, to enable assistant surgeon F. Meacham to comply with S.O. 190; C.S., A.G.O. in his case. S.O. 19, Dept. of Texas, Sept. 29, 1880.

Brewer, J. W., captain and assistant surgeon. Assigned to duty at McPherson Barracks, Atlanta, Ga. S.O. 117, Dept. of the South, Oct. 7, 1880.

Pope, B. F., captain and assistant surgeon. Having reported at these headquarters is assigned to duty at Ft. Sully, D. T. S.O. 122 Dept. of Dakota, Oct. 9, 1880.

Dickson, J. M., captain and assistant surgeon. Assigned to duty as post surgeon at Vancouver Barracks, W. T. S.O. 171, Dept. of the Columbia, Sept. 24, 1880.

Cronkhite, H., captain and assistant surgeon. Assigned to duty as post surgeon at Camp Sheridan, Neb. S.O. 94, Dept. of the Platte, Oct. 5, 1880.

Heizmann, Chas. L., captain and assistant surgeon. Granted leave of absence for one month, with permission to apply at division headquarters for an extension of one month, and to the Adjutant General of the Army for a further extension of two months. S.O. 170, Dept. of the Columbia, Sept. 23, 1880. Leave of absence extended one month; S.O. 143, Div. Pacific and Department of California, Sept. 28, 1880.

Wilson, Wm. J., captain and assistant surgeon. Having reported at these headquarters, is assigned to duty at Ft. Meade, D. T. S.O. 121, Dept. of Dakota, Oct. 6, 1880.

Weisel, D., captain and assistant surgeon. Assigned to duty as post surgeon at Ft. Warren, Mass. S.O. 181, Dept. of the East, Oct. 8. 1880.

Matthews, W., captain and assistant surgeon. Having reported at these headquarters, is assigned to duty at the Cantonment on the Uncompahgre, Col. S.O. 223, Dept. of the Missouri, Ocl. 8, 1880.

Semig, B. G., captain and assistant surgeon, Ft. Fred Steele, Wyoming T. Granted leave of absence for one month. S.O. 95, Dept. of the Platte, Oct. 9, 1880.

Biart, V., first lieutenant and assistant surgeon. So much of S.O. 205, Sept. 24, 1880, from A.G.O., as relates to him, is suspended until May 1, 1881. S. O. 209, A.G.O., Sept. 30,1880.

Gray, Wm. W., first lieutenant and assistant surgeon, when relieved by assistant surgeon Dickson, to report to commanding officer, Ft. Canby, W. T., for duty as post surgeon. S.O. 171, C.S., Dept. of the Columbia.

Gorgas, W. C., first lieutenant and assistant surgeon. Assigned to duty as post surgeon at Ft. McIntosh, Texas, to enable assistant surgeon J. H. T. King to comply with S.O. 190, C.S., A.G.O., in his case. S.O. 199, C.S., Dept. of Texas.

BOOKS AND PAMPHLETS.

F. C. Hotz, M.D., Chicago. A Case of Primary Post Aural Abscess without Implication of the Middle Ear. Reprinted from Archives of Otology, Vol. IX, No. 3, Sept. 1, 1880.

Ophthalmic Miscellanies. Reprinted from the Archives of Ophthalmology, Vol. IX, No. 3, Sept. 1, 1880.

G. P. Hanawalt, M.D., Des Moines, Iowa. Annual address delivered before the Iowa State Medical Society at its session held at Des Moines, January 27, 1880, by the President, G. P. Hanawalt, M.D., of Des Moines. Reprint from Transactions, Vol. IV, page 2.

Charles H. Lothrop, M.D., Lyons. Iowa. Malaria. From the Transactions of the Iowa State Medical Society, 1880.

Gasper Griswold, M.D., New York, N. Y. Pilocarpin in Intermittent Fever. Reprinted from the New York Medical Journal, August, 1880.

D. F. Lincoln, M.D., School and Industrial Hygiene. American Health Primers, No. 12, Edited by W. W. Keen, M.D., Philadelphia; Presley Blakiston, 1880; Jansen, McClurg & Co., Chicago.

Charles W. Dulles, M.D., Philadelphia, Pa. What to do First in Accidents or Poisoning. Philadelphia: Presley Blakiston, 1880; Jansen, McClurg & Co., Chicago.

A. Reeves Jackson, A.M., M,D., Chicago. Lacerations of the Neck of the Uterus. Read before the Tippecanoe County Medical Society, at LaFayette, Indiana, May 6, 1880. Reprinted from the American Practitioner.

Samuel W. Gross, A.M., M.D., Philadelphia, Pa. A Practical Treatise on Tumors of the Mammary Gland, Embracing their Histology, Pathology, Diagnosis and Treatment. New York: D. Appleton & Co.; Jansen, McClurg & Co., Chicago.

Edouard Seguin, M.D. Report of one of the Delegates of the American Medical Association to the Foreign Medical Organizations, (1879–1880). Metric Notes, No. 12.

Michigan State Board of Health. Regulations for Examinations in Sanitary Science, by the Michigan State Board of Health. Reprinted from the Seventh Annual Report of the Michigan State Board of Health for the year 1879. Reprint No. 67.

Joseph H. Warren, M.D., Boston, Mass. Cure of Hernia by Subcutaneous Injection, with a Description of Various New Surgical Instruments. Read before the British Medical Association, Cambridge, August, 1880.

American Institute of Homœopathy. Report of the Bureau of Organization, Registration and Statistics, to the American Institute of Homœopathy, at its Session held in Milwaukee, June 15, 1880,

H. Charlton Bastian, M.A., M.D., F.R.S. The Brain as an Organ of Mind. New York, D. Appleton & Co., 1889; Jansen, McClurg & Co., Chicago.

L. Duncan Bulkley, M.D., New York, N. Y. The Skin in Health and Disease. American Health Primers, No. X. Edited by W. W. Keen, M. D. Philadelphia; Presley Blakiston, 1880; Jansen, McClurg & Co., Chicago.

L. McLane Tiffany, M.D., Baltimore, Md. Diagnosis of Malignant Tumors of the Upper Jaw in Youth. Reprint from Transactions of the Medical and Chirurgical Faculty of Maryland, 1880.

Long Island College Hospital. Announcement of the Twenty-Second Annual Session of the Long Island College Hospital, Brooklyn, New York. Collegiate Year, 1880–1881.

J. W. Smith, M.D., Charles City, Iowa. Exsection of the Lower End of the Femur. A paper read before the Iowa State Medical Society, at its Session held at Davenport, June 6, 1879. Reprint from Transactions, Volume IV.

Geo. M. Staples, M.D., Dubuque, Iowa. Paracentesis Pericardii, and a New Method of Arresting Puerperal Eclampsia. Papers read before the Iowa State Medical Society, at its Sessions, held at Davenport and Des Moines 1879 and 1880. Reprint from Transactions, Volume IV.

Lennox Browne, F. R. C. S., Edinburgh. Medical Hints on the Production and Management of the Singing Voice. New York: M. L. Holbrook & Co.

MORTALITY IN CHICAGO FOR SEPTEMBER, 1880. POPULATION, CENSUS 1880, 503,298.

Oscar C. DeWolf, M. D., Commissioner of Health. *M. K. Gleason, M. D., Registrar of Vital Statistics.*

ZYMOTIC.	
ORDER 1—*Miasmatic.*	
Carbuncle	1
Chicken Pox	...
Cholera—Infantum	41
Cholera—Morbus	2
Croup	31
Diarrhœa	20
Dysentery	7
Diphtheria	85
Entero-Colitis	12
Erysipelas	5
Fever—Cerebro Spinal	8
Fever—Intermittent	1
Fever—Remittent	3
Fever—Scarlet	32
Fever—Typhoid	25
Fever—Typho-Malarial	5
Fever—Typhus	...
Measles	2
Small Pox	2
Whooping Cough	7
ORDER 2—*Enthetic or Inoculated.*	
Syphilis—Congenital	2
ORDER 3—*Dietetic.*	
Alcoholism—Chronic	1
" Delirium Tremens	1
Inanition	27
Purpura	1
CONSTITUTIONAL.	
ORDER 1—*Diathetic.*	
Anasarca	3
Cancer	2
Cancer—Bowels	...
Cancer—Breast	1
Cancer—Lip	1
Cancer—Liver	1
Cancer—Stomach	3
Cancer—Uterus	1
Dropsy	2
Marasmus—Senile	3
Marasmus—Infantile	11
Rheumatism	2
ORDER 2—*Tubercular.*	
Caries of the Vertebræ	1
Hæmoptysis	3
Phthisis Pulmonalis	70
Scrofula	1
Tabes Mesenterica	6
Tubercular Meningitis	8
LOCAL.	
ORDER 1—*Nervous.*	
Abscess—Brain	1
Apoplexy—Cerebral	10
Cerebritis	1
Congestion of Brain	3
Convulsions—Infantile	67
Encephalitis	6
Epilepsy	2
Exhaustion	1
Meningitis—Cerebral	20
Meningitis—Spinal	3
Myelitis	1
Paralysis	6
Softening of Brain	3
Sclerencephalia	1
Tetanus—Idiopathic	2
Tetanus—Traumatic	1
Trismus Nascentium	3
ORDER 2—*Circulatory.*	
Aneurism—Aorta	1
Heart—Organic disease	5
Heart—Valvular disease	9
Pericarditis	5
Syncope	1
ORDER 3—*Respiratory.*	
Abscess—Pulmonary	1
Asthma	2
Bronchitis	10
" Capillary	9
Congestion of Lungs	8
Hydrothorax	1
Laryngitis	...
Pleuritis	...
Pneumonia	23
Pneumonia—Broncho	...
Pneumonia—Pleuro	1
ORDER 4—*Digestive.*	
Abscess—Liver	2
Atrophy—Liver	...
Cirrhosis—Liver	1
Enteritis	16
Fibroid Growth of Pylorus	...
Gastritis	9
Gastro-Enteritis	8
Hepatitis	2
Hernia—Strangulated	1
Hypertrophy—Liver	...
Intussusception	2
Peritonitis	3
Ulceration of Bowels	2
" of Stomach	1
ORDER 5—*Urinary.*	
Bright's Disease	7
Cystitis	1
Diabetes	2
Nephritis	3
Hæmaturia	1
ORDER 6—*Generative.*	
Metritis	1
Ovarian Tumor	1
ORDER—*Locomotary, Osseous.*	
Synovitis	1
ORDER 8—*Locomotory, Integumentary.*	
Pemphigus	1
Ulcer—Throat	...
DEVELOPMENTAL.	
ORDER 1—*Children.*	
Cyanosis	3
Congenital Deformity	1
Congenital Debility	11
Dentition	6
Spina Bifida	2
Tedo - Birth	1
Umbilical Hæmorrhage	1
ORDER 2—*Women.*	
Miscarriage	1
Placenta Previa	1
Puerperal Convulsions	2
Puerperal Peritonitis	1
ORDER 3—*Old Age.*	
Debility—Senile	13
ORDER 4—*Nutrition.*	
Asthenia	1
VIOLENCE.	
ORDER 1—*Accident.*	
Burned	4
Crushed	2
Drowning	3
Gunshot Wound	1
Fracture of Skull	1
" Pelvis	1
Rupture—Liver	1
Shock from R R Accident	12
" " Street Car "	1
" " Surg. Operation	1
Strangulation	1
Wound by fall	3
Poisoned—Stramonium Seed	1
ORDER 2—*Homicide.*	
Murder	...
ORDER 3—*Suicide.*	
Hanging	1
Drowning	1
Poisoning—Laudanum	2
Unknown	2
Ill Defined	2
Total Deaths	803

DEATHS FROM ZYMOTIC DISEASES, PHTHISIS PULMONALIS AND ACUTE LUNG DISEASES, BY WARDS.

WARDS.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Public Institutions	Total
Small Pox						1													1	2
Measles					1									1						2
Scarlatina				4	5	4	2						1	8	1	3	1			32
Diphtheria		1		2	6	6	5	4		1		2	5	31	12	3	4	3		85
Croup				2	3	4	5	1		2	1		3	7	4	3	1	1		37
Whooping Cough		1			1			1	1					3						7
Fever—Typhus																				0
" Typhoid		2		1	3	3				3		1	1	3	2	1		2	3	25
" Cerebro-spinal				1	2	1	1	1					1			1				8
" Malarial					2	1						1	1	2			1			9
Diarrhœal Diseases		1	1	5	13	7	5	10	1	1	2	2	2	18	4	1	6	2	1	83
Other Zymotic Diseases		1	2	1	3	3		4	1	1	2			4	4	1	2	1	10	38
Totals		6	3	16	39	30	18	24	3	8	5	6	14	77	27	13	15	9	15	328
Phthisis Pulmonalis	1	3	2	4	3	2	5	8	2	2	4	1	6	7	3	5	1		11	70
Acute Lung Diseases	1		1	1	6	9	3	1	3	1		3	2	10	3	4	2		3	53

WARDS.

Wards.	Population.	Density Per Acre.	Deaths under 5 yrs. of age.	Total Deaths in Ward	Deaths in 1,000 of Population.
1	14,765	30.78	1	9	....
2	20,099	51.00	6	18	0 89
3	16,798	38.31	7	13	0.77
4	28,162	26.26	15	31	1.10
5	47,500	16.50	44	69	1.45
6	40,890	9.78	61	88	2.17
7	37,457	26.69	24	43	1.14
8	37,146	57.68	34	51	1.37
9	17,477	60.35	6	18	1.03
10	15,754	60.61	12	22	1 39
11	22,364	38.95	8	22	0 80
12	27,914	12.59	15	25	0.86
13	20,857	14.58	14	28	1.34
14	56,534	18.37	101	150	2.65
15	28 863	33 29	27	47	1 62
16	23,771	44 52	22	35	1.47
17	24,676	64.42	17	30	1.21
18	22,311	40.33	7	14	0 63
Public Institutions			21	58	.....
By violence			.....	36	.....
Unknown			.....	.....	.....
Total				803	

AGES.

Under 5 years	445	From 4 to 5 years	21	From 40 to 50 years	43	From 90 to 100 years	1
Under 1 year	252	" 5 to 10 "	67	" 50 to 60 "	41	100 years and upwards	0
From 1 to 2 years	88	" 10 to 20 "	50	" 60 to 70 "	23	Unknown	1
" 2 to 3 "	41	" 20 to 30 "	52	" 70 to 80 "	21		
" 3 to 4 "	43	" 30 to 40 "	45	" 80 to 90 "	12	Total	803

COMPARATIVE MONTHLY MORTALITY.—September, 1878, 663; September 1879, 677; Aug., 1880, 995; September, 1880, 803.

Premature Births..... 9 Still Births.....43

1.595 deaths in 1,000. Annual rate, per 1,000, 19.14.

Chicago Medical Review

PUBLISHED ON THE FIFTH AND TWENTIETH OF THE MONTH.

E. C. DUDLEY, EDITOR.

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CHANDLER & ENGELHARD, Publishers.

BUSINESS OFFICE, 60 WABASH AVE. (Branch Office, 245 Broadway, N. Y.) EDITORIAL OFFICE, 70 MONROE ST.

VOL. II. No. 9. CHICAGO, NOVEMBER 5, 1880. $2.00 A YEAR.

MEDICAL ETHICS ON THE ATLANTIC.— The British Medical Journal of the last few months contains some matter in its correspondence columns which is calculated to produce an uneasy feeling in the minds of all those who are concerned in maintaining unsullied the honor and dignity of the American medical profession. The matter is opened by a letter from Dr. J. Fourness Brice, an English physician on board the transatlantic steamer Germanic. The letter, very dignified and calm in its tone, limits itself to a relation of facts which in the main are stated by our London correspondent in this number. The most regrettable part is the reply to Dr. Brice in which the writer takes the opportunity to advertise himself as the discoverer of the true treatment for sea-sickness, quotes his popular tract and adds that he thinks his experimenting so extensively was unwise, as the annoyance at last became so great of passengers asking for advice, medicines, and even for copies of his book, that he was forced to decline. With affronting irony he then concludes by an expression of thanks to the gentleman whom he abused, for the kindness, promptness and courtesy with which the latter has called attention to his treatment of sea-sickness. The last phase of this epistolary war is a note from the aggrieved surgeon, who proceeds properly to characterize the amusing audacity with which the authority on sea-sickness, instead of answering his letter, utilizes the chance of advertising his specialty, and the ease with which he skips over the breach of etiquette, by intimating that his services were in request on board of the Germanic, to an extent that no one else on board that vessel seems to have had any idea of. The matter is a very unpleasant one to discuss. Of the fact that an American physician has been guilty of unseemly forwardness, and of self-advertisement of a character as offensive as that practiced by nostrum venders, there can be little doubt. That the English surgeon's behavior contrasts very favorably with that of our colleague, is equally evident.

COMPARATIVE ANTHROPOLOGY. — The Medical and Surgical Reporter, since expressing its approval of the habitual use of hypodermic injections of one grain of morphia in cases of severe suffering, is agitating the subject of women as delegates to the International Medical Congress. It charges their non-admittance, in an ill-natured manner, to the eminent English physicians and surgeons who constitute the local committee of arrangements for this congress. It calls some spiteful names, and then strikes a tangent, and utters the eminently original opinion that, although a man's brains are heavier than a woman's, the woman's are of such superior

quality that she must know as much, if not even more. Certain opinions which Crichton Browne and the late Paul Broca have dared to express, are patronizingly, though ruthlessly, swept aside. In a kindly spirit toward the Medical and Surgical Reporter, we would suggest that the weight and quality of woman's brain has nothing to do with her exclusion from the International Congress. Although the Reporter is doubtless right in its feeling that women should be admitted, it is not taking that course which is most dignified or best adapted to the end in view Certainly the Reporter, in its usual one editorial, would make a better impression, and add much to its own prosperity, by treating these complicated anthropological subjects, upon which it prides itself, in a more calm and peaceful manner. Women cannot be snarled into the International Medical Congress.

Very Scientific.—The October number of the American Journal of Insanity concludes the caudal appendix of its editorial "summary" with a hymn to Miss D. L. Dix; a new evidence of the versatile genius of the accomplished superintendent of the State lunatic asylum at Utica. The inspiration appears to have been the presentation of a couple of toys, kaleidoscopes, to that institution. The rhyme, halts a little, but Walt Whitman and others have shown that perfection in such matters is not essential, if the poetic sentiment be well maintained. The following which may be considered as a specimen brick, indicates the sweetness and tenderness of the hymn. To compute its longitude multiply by eight:

"But half Thy work is in the dark
To all but Him who sees the thought,
Who sees it stealing on the march,
To heal the fainting, breaking heart."

With all respect for the excellent lady addressed, it seems to the Review that a sentimental outburst like this ought to be tied up in sanctimonious laces and a pink ribbon. Such incense burning in a professedly scientific journal looks odd, almost as odd as a scientific gentleman would look if he were log-rolling and lobbying for a coat of whitewash at the State capitol.

Race and Insanity.—In the Journal of Nervous and Mental Disease, Oct., 1880, Dr. E. C. Spitzka analyses the statistics of the New York City Asylum for the Insane, an institution which is perhaps more cosmopolitan in the character of its insane population than any other in the world, with special reference to the liability of the different races or nationalities to mental disease. After making all allowances for defects of classification, peculiar circumstances, social conditions, and all other modifying agencies, Dr. Spitzka concludes that as the data will permit of an answer to the question as to influence of race on the production and prevalence of insanity, it may be stated as follows: "On the whole, the different forms of insanity occur in nearly the same proportions in the Anglo Saxon, Teutonic, Celtic and Hebrew races; paralytic insanity is most common among Anglo-Saxons, and least common among negroes; melancholia is most common among the Germanic peoples; the tendency to terminal dementia is greater in the Anglo-Saxon than in the German or Celt; and the forms dependent upon hereditary taint are most common among Hebrews. With this it is in accord, that since the termination in dementia and the influence of heredity are the factors which chiefly cause an accumulation of the insane population, that the Hebrew and the Anglo-Saxon should have the highest proportion insane of their respective populations." The paper and the tables accompanying it are very suggestive, and the investigation on which it is based, is, so far as we are aware, the only systematic one of its kind on its special subject.

Saleswomen.—The four representative dry goods houses in Philadelphia, employing from one hundred and fifty to two hundred women each, as clerks, and a large number of smaller establishments, now provide seats for their saleswomen when not engaged with customers. A reporter of the New York Sun has been interviewing the managers of these large establishments relative to this subject, and they unanimously report that this plan results in better health and greater efficiency on the part of the saleswomen.

THE TREATMENT OF HYDROPHOBIA BY CURARE, has been attempted by Dr. von Hake, (Deutsche medicinische Wochenschrift, October 2, 1880). The temporary success in the following case speaks in favor of the efficacy of the remedy. A man of fifty-two years was bitten in the hands by a dog supposed to be mad. Thirty hours later the wounds were seen, dressed antiseptically, and healed well. From that time on, the patient, formerly a jolly and sociable person, became quiet and morose. He was at times irritable and anxious. Seven weeks and two days later, he came in the evening, complaining of pain, feebleness and numbness in the right arm, of thirst and of the dread of water. On offering him water, his face expressed the utmost terror, and spasm of the œsophagus occurred at once. The cicatrix did not seem to be in a state of irritation, but a pale red, lymphatic line passed from it upwards to a tender and swollen axillary gland. With difficulty the patient was induced to take two and a half grammes of chloral, which, however, failed to produce sleep. The following morning he was taken to the hospital. On arriving there, a new symptom occurred, the dread of every draught of air. In the afternoon the treatment of hypodermic injections of curare was commenced, a solution of one part in sixty of water and glycerine being used. It was subsequently learned that it required seven milligrammes of this unstable article to kill a rabbit. The first dose was but two milligrammes, but the injections being given almost every hour, the amount was increased to fifteen milligrammes. Within twenty hours he received three hundred and eighty-two milligrammes of curare. During this time he improved noticeably. Although two attacks of opisthotonus occurred the next day, the patient felt well, and neither consciousness nor mind were affected. The anxiety and dread of water diminished, and toward afternoon he could even drink coffee. Sleep had been repeatedly procured by clysmata of chloral and morphine. No physiological effect of curare had been observed at any time, but the mitigation of all the symptoms is certainly an exception to the usual course of hydrophobia. Toward the afternoon of the second day he was violently excited by his relatives, who attempted forcibly to see him. A maniacal attack broke out with such intensity that no one dared to enter the room until the following morning. During that time an enormous salivation had taken place. No further treatment could be employed and the patient died the following morning.

UROBILIN IN URINE.—The experiment to show the existence of this substance is very delicate, and often does not succeed. Salkowski, (Z. f. Phys. Chem.) conducts it as follows: 100 c.c. of urine is shaken with 50 c.c. of perfectly pure (alcohol free) ether. The ether is decanted and evaporated. The residue which is often so little as to be almost invisible, is taken up by absolute alcohol, in which it is easily dissolved. The solution thus obtained is rose red with green fluorescence, and shows the absorption bands of urobilin (hydrobilirubin) in a very striking manner. Any slight irregularity in the process, as for example, the addition of alcohol or acetic acid, when shaking with ether, will cause the experiment to fail.

THE DIFFERENTIATION OF RÖTHELN.—Mr. W. Douglas Hemming, in the July number of the Edinburgh Medical Journal traces out eight principal points of difference between rötheln, scarlatina and measles. I. The temperature rarely rises above 101° to 102°. II. The eruption almost invariably appears all at once over the whole body. III. It affords no protection against the occurrence of either measles or scarlatina. IV. It propagates itself, and never gives rise either to measles or scarlatina. V. The patches of eruption are raised above the surrounding skin, particularly towards the centre of the patch where the color is also deeper. VI. The desquamation occurs in minute portions of cuticle like scales of fine bran, and always begins towards the centre of an eruptive patch, gradually extending to the circumference. VII. The patches of eruption are larger and brighter in severe than in mild cases. VIII. The tongue is more or less coated at first, then becomes strawberry-like, and finally smooth.

The American Public Health Association will hold its eighth annual meeting in New Orleans, commencing Tuesday, December 7th, 1880, and ending Friday, December 10th, 1880. Papers will be presented on Abattoirs, Epidemics, Life-Insurance in its relation to the Public Health, The Storm-water question in City Sewerage, The Sanitary Engineering problems of the Mississippi River, The Hygiene of Emigrant Ships, The prevention of Venereal Diseases, Voluntary Sanitary Associations, etc., etc. The special questions suggested for discussion at this meeting in addition to those connected with the papers above referred to, relate to methods of preventing the spread within a town or city, after they have once been introduced, of such contagious or spreading diseases as diphtheria, scarlet fever, yellow fever, measles, small-pox, etc., and are as follows: I. What are the best means of securing prompt and reliable information as to the presence and location of cases of such diseases? II. What are the best means of securing isolation of the first or of single cases of such diseases, and what are the chief difficulties in securing such isolation? III. Under what circumstances is it proper to declare such diseases epidemic in a place? IV. Under what circumstances is it proper to recommend the closure of schools on account of the prevalence of such diseases? V. What precautions should be taken at the termination of each case? Brief practical papers upon any or all of these points are earnestly requested. Gentlemen who propose to present papers are requested to notify the president, John S. Billings, M.D., Washington, D. C., or the secretary, E. H. Janes, M.D., New York City.

Albumen Consumption of a Laborer.—According to Voit, the albumen consumption of a laboring man of average weight and health amounts to 118 grammes daily. Beneke, on the contrary, regards this number as too high, and places it at 94 grammes daily. Bowie, (Z. f. Biolog.) has communicated the results of fourteen determinations which tend to corroborate the numbers of Voit. The amount of albumen assimilated was estimated by the nitrogen content of the urine. In four of these cases the albumen assimilated amounted to more than 118 grammes. Among these was one whose weight was only 64 kilos. In two cases in which the weights were 64 and 72 kilos, the albumen fell only a little short of 118 grammes. In two other cases with weight of 60 and 63 kilos, the numbers fell below, being 62 and 97 grammes respectively. To a laborer weighing 74 kilos, and requiring 121 g. of albumen food, Bowie gave a mixed food containing 12.57 g. nitrogen. Of this amount 10.4 g. nitrogen was found in the urine and the rest in the fæces. This shows that albuminous matters when used up in the system escape almost entirely through the kidneys. The final conclusion arrived at from these researches is that the average laboring man should have not less than 118 g. albumen, 56 g. fat and 500 g. carbohydrates a day. The total mentioned here is only about 700 g., but it must be remembered that this is reckoned on the supposition that the articles in question are anhydrous. Perhaps 700 g. of solid food would appear a small allowance to an American laborer, but there is every reason for believing that the average quantity received in Europe by each laboring man daily is rather under than above this estimate.

Composition of Lung Tissue in Pneumonitis.—Sotnischewsky (Z. f. Phys. Ch.) has made some chemical examinations of the tissues of the lung affected with inflammation. The lung tissue was in the state of red hepatization, and taken at a time when the exudate had suffered no further change. The hepatized lung substance is finely rubbed up, thoroughly extracted with cold water and pressed. The residue is divided into four parts and treated respectively with brine, hydrochloric acid, lime-water and alcohol. In the water extract an albuminous body was found which coagulated at the low temperature of 55° C. In normal lung tissue this albumen is not found, nor likewise in the more advanced state of gray hepatization. There were also found in the aqueous extract leucin, tyrosin, xanthin, taurin and a considerable quantity of glycogen. In the brine

extract a little myosin was found. The hydrochloric acid extract was used for the quantitative estimation of the albumens, which amounted to 17.02 per cent. of the solid residue. By the lime-water extract the absence of mucin was proved. In the alcohol extract were soaps and cholesterin. The latter was also extracted by ether from the hydrochloric acid residue. The water, brine and lime water extracts all gave strong reactions for peptone. The two results in the above analysis, which are most striking, are first, the presence of the albumen coagulable at a low temperature, and second, the entire absence of mucin.

Substitute for Coffee.—Among the latest of these may be mentioned the seed of the yellow lupinus. Bering, a chemist in Bromberg, has patented a process for extracting the greater part of the bitter principle from these seeds, and by a peculiar process of roasting them produces a kernel which has the taste, odor and general properties of real coffee. The kernels have an ovoid shape; are 7 to 8 m.m. long, 6 m.m. broad, and 4 to 5 m.m. thick. The extract, or coffee, is dark brown, and tastes almost exactly like the extract of real coffee of corresponding strength. It is easily distinguished from true coffee by the fact that tannic acid will produce a precipitate in it, while it has no effect on pure coffee. The aqueous extract of the lupinus seeds fully dried, leaves a residue which contains 60 per cent. of albuminous substances. Thus, as a food, Bering's coffee is more valuable than the genuine article. If real ground coffee is adulterated with the Bering's coffee, the microscope and brine test will always detect the fraud. A saturated solution of common salt supports on its surface the fragments of real coffee even after ten minutes' shaking, while at the end of the same time at least 98 per cent. of Bering's coffee will have sunk to the bottom.

Pelletierine, or the active principle of pomegranite bark, is recommended as a most powerful and most certain tænicide, by Dr. Berénger-Férand in the Révue de Therapeutique.

Imitation of Coffee.—Leusman & Zobel, Hannover, have introduced a compound coffee imitation which is especially recommended for nervous persons and children. It possesses the pleasant taste and aroma of real coffee, but does not excite the nerves nor interfere with digestion. Boiling water extracts 38 per cent. of this surrogate. Of this amount about 15 per cent. are starch and sugar-like bodies, 12 per cent. are bodies allied to tannin, 6.4 per cent. are fatty matters, and 4.1 per cent. are salts. This substance appears to contain nothing which produces any deleterious effects on the system, and hence it may prove of value to coffee dyspeptics who have not strength of will to leave off its use.

Hot Ice.—The fact that the boiling point of a liquid is dependent on the pressure to which it is subjected has long been a fundamental one in chemical physics. Within a few years it has been discovered that in order to convert a gas into a liquid the temperature must be below a certain point called the "critical temperature." If the temperature is above this point no amount of pressure, however great, can liquify a gas. The gas indeed may be compressed until it occupies no greater space than it would as a liquid, but nevertheless it is still a gas. As a remarkable counterpart to the above, Mr. Thomas Carnelley (Chem. News) announces the law that "in order to convert a solid into a liquid, the pressure must be above a certain point, which is the 'critical pressure,' otherwise no amount of heat will melt the substance." Acting on this theory Carnelley has obtained ice at a temperature so high that when touched it burned one like a hot iron. In like manner he has maintained ice indefinitely at a temperature far above 100° C. without its having shown any signs of fusion. In this condition the ice slowly passes into a vapor without taking on the intermediate liquid state. These results are obtained by working in a partial vacuum in which the pressure is not allowed to rise above four and six-tenths millimetres, which represents the tension of aqueous vapor at 0° Centigrade.

Sources of Fat.—Liebig was the first definitely to announce the theory which refers the fat genesis to the carbo-hydrates in the food. The view was generally adopted by chemists and physiologists. In 1865, at a meeting of agricultural chemists held in Munich, Voit announced the theory, based. on experiments with Pettenkofer's respiration apparatus, that the true source of fat was to be found in the nitrogenous foods. Mr. Lowes and Dr. Gilbert, of the agricultural station at Rothenestead, afterwards undertook an extensive series of experiments to show that it would be impossible for all the fat to be produced from the nitrogenous foods, which seem definitely to prove that at least a large portion of fat must be derived from the carbo-hydrates in the food. The results of practical feeding also show the same. Dr. Gilbert, in his late address as president of the chemical section of the British Association, summarizes the results of experiments up to the present time. Wolff, Henneberg, Kern and Wattenberg, among chemists, agree with Gilbert that the carbo-hydrates play a most important part in fat production. On the other hand, Voit is still followed by many physiologists in ascribing fat production solely to nitrogenous foods. From the mass and kind of testimony Gilbert has adduced, it must be admitted that the old theory of Liebig is best supported by the facts.

Alterations of the Blood in Disease.—At the recent session of the French association for the advancement of science, at Reims, Dr. Quinquaud read the report of an experimental investigation from which he adduced the following conclusions: I. In the physiological state, a small quantity of the hæmoglobine in the vessels is inactive. II. In the febrile condition this inactive portion becomes active in the circulation. III. In certain disorders the hæmoglobine becomes inert. This is the case in the last stages of confluent variola, of croup, of cholera, of peritonitis, of super-acute infectious puerperal conditions. In these cases the patient dies cyanosed, or with the form of asphyxia commonly called bloodless; the hæmoglobine absorbs less and less, a large part of it becoming inactive and then inert. IV. The hæmoglobine may become altered to such a degree as to leave the blood globules, and dissolve and transude freely from the blood-vessels. This occurs in the severe hæmorrhagic diseases, hæmorrhagic variola, scurvy, etc. The principal cause of this active dissolution of the globules appears, from analysis, to reside chiefly in the lesions of mineralization of the globules and the blood plasma. In these cases the corpuscular and plasmatic albuminoids are also altered.

Goitre.—Dr. Boéchat, in the Blatt f. Schweiz. Aertz. employs in the treatment of goitre externally, finely powdered iodoform which has been intimately mixed with glycerine. This mixture he applies to the goitre. As this begins to dry he paints the part with collodion, the ether in which dissolves a portion of the iodoform. The chief objection to this is that it only partially conceals the disagreeable odor of the iodoform. Better results have been obtained from the injection into the tumor of iodoform dissolved in some indifferent fluid, than from the injection of tincture of iodine. The most marked results from the external application of iodoform were obtained in the cases of young patients and in goitres of recent growth. In the cystic and parenchymatous forms of goitre and in goitres of long standing this method proved of little or no use. Dr. Stevens, of Quebec, reports in the American Practitioner, October, 1880, seven cases of goitre cured by the use of ammonium chloride in ten grain doses three times a day. The tumors entirely disappeared in three months. Six of Doctor Stevens' cases were girls under twenty years of age, one a woman of forty.

Albumen in Urine.—Bödecker (Arch. Pharm.) has proposed the following test for albumen in urine. The urine is to be treated with slight excess of acetic acid, and then with a few drops of a solution of ferrocyanide of potassium. The mixture is then to be warmed. If albumen be present, even in the smallest quantities, a turbidity is at once produced. On standing for a short time a flocculent precipitate appears.

MANAGEMENT OF NERVOUS DISEASES.—At the October 11 meeting of the West Chicago Medical Society, Dr. J. S. Jewell read an interesting paper entitled "Practical Observations on the Management of Nervous Diseases." The author stated that it might be said that nervous and mental diseases, especially the former, were on the increase. The nervous system is the most exalted in rank among the various systems of the body, and has the widest and most important relations in health and disease. Diseases formerly considered as foreign to the nervous system are now known to be dependent upon it, and many nervous diseases formerly confused together are now separated and clearly defined. The treatment of nervous and mental diseases may be considered under two aspects, the hygienic and the more or less purely medical. Too little attention has hitherto been given to their hygienic management; too little care is taken in ascertaining the habits, hereditary tendencies, character of air, food, and of the multitude of circumstances which make up the daily life of a patient, and to estimate the share these may have had in the production of disease. These careful enquiries are in no class of diseases more important than in those of the nervous system. The nervous system is the seat of almost constant activities. These are of two kinds—voluntary and involuntary. A vast number of nervous diseases grow out of overwork, either general, or, as in the case of those suffering from writer's cramp, and similar diseases, local. The only way to secure recovery in cases of overwork is to remove the cause; that is, stop work. The nervous system is also exhausted by what is *endured*, as by business cares, domestic troubles, the unfavorable operation on the nervous system of depressing emotions of all kinds, or the undue indulgence of even pleasurable emotions. It is the author's deliberate opinion that many persons have perished not only from overwork and overexcitement, but from the lack of proper passive exercise, and that thousands remain prolonged or permanent invalids, who could be redeemed by appropriate passive physical exercise which tires but does not exhaust. In all cases of general or limited neurasthenia, paralysis, or nervousness, the question of massage should be met. The physician should not only perceive the necessity for passive exercise, but should define minutely its kind and the amount required, the time of giving it, and should see that it is administered by a competent nurse. The passive exercise should include not only rubbing of the surface, but also the kneading, spatting and other motions designed to improve both the superficial and deep circulation. Not only in nervous disorders, but in all cases in which patients are confined to their rooms, comfort may be promoted and progress toward recovery made more easy by the use of properly applied passive exercise.

Many patients, being unable to pursue any active occupation, give themselves to reading. Many patients are retarded in recovery, or made worse from day to day by over-reading, which exhausts and deranges the nervous system. This is especially the case in asthenopia or in the presence of visual defects, in which the use of the eyes may put a strain upon the visual apparatus. The social relations and activities of nervous patients were next referred to. Nervous invalids are often overrun with visitors. This will not infrequently so exhaust them that the good effects of the treatment are dissipated. Promiscuous calls should be under the physician's control.

The question of diet is one of great importance especially in all general neuroses. The physician should obtain a minute history of the dietetic habits of each patient, so that he may apply himself with the utmost care to the making up of a diet list with especial reference to the patient's peculiarities. The object in this should be to secure the maximum of nutritive material for the patient in a minimum volume. The matter of diet is as a rule far more important than the giving of medicine. In all cases where the nervous system is highly sensitive, disposed toward neuralgias or irregularities in vaso-motor action, and in a majority of the cases of neurasthenia the author has found it of great importance to forbid the use of coffee and tea, or to insist that if they are used the infusions shall be weak.

Many cases of nervous disease are very susceptible to climatic changes. For example, in selecting a locality suitable to active and passive congestions of the brain and spinal cord, the author has found it necessary to observe two rules: I. The climate should be warm and steady; and II. The barometric pressure should be habitually low. If the climate be cold during a great part of the year the action of the surrounding cold media upon the surface of the body produces contraction of the cutaneous vessels. If less blood circulates in the surface of the body more must circulate in the interior. If there are vascular areas in the body, the blood-vessels in which easily give way under increased vascular pressure, it will readily be seen how a more or less passive congestion may be made worse habitually under such climatic conditions. High barometric pressure implies high atmospheric pressure on the surface of the body. By this the blood is forced into air-tight cavities, like the cranial and spinal, more freely than if barometric pressure were low. Hence the author sends cases of spinal and cerebral congestion high above the sea level, and where the temperature is mild. Cases in which the vascular tension is low and the circulation feeble, he sends to the sea level, where the temperature is low and the barometric pressure high. It is an important matter to adapt climates to cases.

Remarks of a practical character were made on the significance of weather pains, on the conditions and necessity of sleep, on the relations between the region supplied by the splanchic nerves that is, the abdominal, and the intracranial circulation in the production of headaches, of vertigos, of insomnias, of melancholias, and a host of symptoms, of or about the head, and finally on the necessity of securing entirely the confidence and mental quietude of nervous patients. After the reading of the paper, which seemed to have the hearty approval of the members present, Prof. H. M. Lyman and others joined at considerable length in its discussion.

The Tri-State Medical Society, will hold its next meeting at Louisville, Kentucky, November 9, 10, 11 and 12, 1880.

Signs of Death by Strangulation.—To few appearances in the bodies of those dying from suffocation of any kind, has so much importance been attached as to the existence or absence of subpleural ecchymotic spots. The chief medico-legal authority of France has even gone so far as to declare these spots pathognomonic of death by suffocation. A very thorough review of the subject by Rheder in the German Quarterly Journal of Medical Jurisprudence, shows that this is erroneous. He finds that the ecchymoses are due to ruptures of small blood-vessels, in consequence of increased arterial pressure, and that therefore they are the more likely to be found, the longer the time occupied in producing the suffocation. Where, however, the suffocation has been very sudden, there not being an opportunity for a high and prolonged rise of arterial pressure to be produced, the ecchymoses may be altogether absent. Where convulsions accompany rapid suffocation, they will, however, be more apt to be present, for reasons that must be evident.

A New Form of Pulmonary Disease.—Professor Baeltz, of Tokio, Japan, describes a new form of pulmonary disease occurring in his adopted country, to which disease he assigns the name of gregarinosis pulmonum. Perfectly healthy people are found to expectorate bloody sputa for years, and both the physical and subjective symptoms of any tangible disease are at the time, and even after the condition has lasted over ten years, altogether absent. On closer examination the sputa are found to be of a rusty brown color, contain elements of the blood, and a parasitic body resembling the gregarinidæ, whose mature form and psorospermia were both represented. No sequelæ are known to follow, and the affection appears to be quite common, the Professor having observed twelve cases in one year.

The Internes of Paris hospitals are nominated by concours. Their term of service is four years. They receive the first and second year five hundred francs. This is increased annually one hundred francs for the third and fourth years of their service.

Warble in the Human Species.—Professor Beretta, of Catania, reports in the Giornale della R. Accademia di Medicina, of Turin, the case of a child four years old brought to him suffering from obscure symptoms, which had baffled the diagnosis and treatment of the apothecary who had had it in charge. The Professor opened an abscess in right retro-mastoidean region and with a quantity of fetid pus there was evacuated a grub, recognized as the larva of Œstrus bovis, or the common warble. The child had been in the habit of accompanying its father in driving cattle, and had in some way been operated on by the fly, mistaking the species or indifferent as to what particular mammal she made the receptacle of her ova. It is not perhaps uncommon for some insects to attempt to thus utilize the human species, but they rarely succeed, and there are not many instances like this one on record.

Breech Presentations.—Dr. Champetier de Ribes states in a late issue of the Gazette Médicale de Strasbourg, that the passage of the fœtal head through the contracted superior strait in breech presentations is considerably facilitated by pushing directly backwards into the concavity of the sacrum that side of the base of the neck which is found descended behind the symphysis pubis, and which is seized between the index and medius as in a fork, and by causing an assistant to make expression bearing on the frontal region of the fœtus, with the palm of the hand which embraces this region and lowers it, following the direction of the axis of the superior strait.

Action of Strychnine on the Sensory Nerves.—Dr. B. F. Lautenbach reports, in a late number of the Philadelphia Medical Times, the results of a series of experiments on frogs, illustrating the action of strychnine upon the sensory nerves. From the experiments he draws the two following very important conclusions: I. That the sensibility to touch is conveyed to centers by other channels than the other forms of sensibility. II. That a physiological difference exists between motor and sensory nerves.

Quinine, Digitaline and Atropine Combined.—In an article which appeared in the Annali de Medicina Publica, and was abstracted in La France Médicale, June 26, Dr. Guido Cavazzini draws the following conclusions in regard to the action of quinine, digitaline and atropine combined: I. Quinine and atropine exert an astringent action upon the peripheral vascular extremities. They correct the dilatation produced by digitalis. II. Atropine and digitaline are antagonistic; the former gives tonus to the terminal vessels and paralyses the heart; the latter produces an opposite effect. III. These two agents combined cause a considerable diminution of the ventricular contractions of the heart, and a diminution much less marked of the auricular contractions. IV. Quinine and digitaline combined, reciprocally increase their power of action. V. Quinine and atropine neutralize each other with respect to their action on the heart. VI. These three medicines given singly may bring on a state of collapse, which is due in the case of quinine to ischæmia of the heart, in the case of digitaline to its tetanization, and in the case of atropine to its asthenia.

Hæmorrhages in Paralytic Insanity.—It is well known that peculiar hæmorrhages under the perichondrium of the aural cartilage, known as othæmatomata, are not infrequent in paralytic dements; it is not so well known that analagous hæmorrhagic tumors may occur in the nasal cavity, the so-called rhinhæmatoma. According to Brown-Séquard such lesions or similar ones, can be artificially produced by injuring the restiform columns of animals; and by causing various injuries to the brain, he was able to produce even visceral hæmorrhages. These latter have been found quite frequent in the last stages of paralytic insanity, and a German alienist has found that insidious hæmorrhage into the stomach is a frequent complication and may terminate the history of a case.

Prof. Delpech, of Paris, known on account of his hygienic researches, and works on hygiene, died suddenly at the age of sixty-two years, from heart disease.

A Large and Mobile Pupil is mentioned by Dr. L. Carter Gray, as a characteristic sign of epilepsy. (American Journal Med. Sc., Oct., 1880). As the result of observation he claims, with due reserve, that epileptics show at all times a dilated pupil, which enlarges on shading it, with more than normal readiness. The distinctness of the symptom does not depend on the intensity of the disease; it is present both in grand mal and petit mal. The main stress is attached to the fact that this peculiarity does not exist in patients having convulsions of different nature, for instance hysteria. The author examined forty-nine epileptics and found the symptom constant in all but four, the epileptic condition of which was, perhaps, doubtful.

The Visceral Lesions of Small-Pox.—The fact that, while generally but slight visceral lesions are found on the autopsy of subjects dying with small-pox, there are cases in which very intense changes occur, is well known to the pathologist, though often lost sight of by the clinician. Two autopsies reported in the Bulletin of the Anatomical Society of Paris, for May last, are well calculated to recall attention to the formidable possibilities of this disease. In the first case there were found multiple abscesses in the kidneys, liver and brain, besides evidences of suppurative broncho-pneumonia. In the second case, a large infarction was found in the left kidney. The eruption was in both cases confluent.

Vomiting.—Professor Potani states in the Révue Médicale of August 28, that vomiting is a more constant symptom of brain disease, or disease of the kidney, than of affections of the stomach, and advises attention to the encephalon and the uriniferous organs in cases in which constant vomiting is observed without any manifest sign of disease of the digestive organs.

Phthisis.—Dr. Heitler, of Vienna, has found seven hundred and eighty cases of absolute tubercular patches in sixteen thousand five hundred and sixty-two autopsies. Five hundred and three of these cases were in men, two hundred and seventy-seven in women. Dr. Heitler infers that these are cases in which there was spontaneous cessation of the phthisical process.

Night Medical Service.—Dr. Post, at the October 7 meeting of the New York Academy of Medicine, presented resolutions expressing confidence in the usefulness of the night medical service in New York, and complimenting in high terms the determined zeal of Dr. Henri Nachtel in accomplishing this good work.

LOCAL.

COOK COUNTY HOSPITAL

may now lay the flattering unction to her soul, that within her wards has occurred the most speedy recovery on record, from excision of the hip joint. Eddie Prout, eight years of age, who was mentioned in the Review of October 5 as being up and around the ward on crutches in less than six weeks after hip joint excision, now, nine weeks after the operation, is able to walk without a cane.

WEST CHICAGO MEDICAL SOCIETY.

An enthusiastic audience of ten greeted those who presented papers before the West Chicago Medical Society, October 25. Dr. I. N. Danforth presided. Dr. T. W. Brophy read a paper upon caries of the superior maxilla, and reported a case. The author condemned the practice of the external lancing of alveolar abscesses.

Dr. Murdoch exhibited a specimen from Rush medical college museum, of foreign body in the heart, and presented an interesting statistical paper on this subject.

Dr. E. L. Holmes reported verbally a case of duboisia poisoning, which was published in the Review, May 20.

Dr. D. H. Valin then reported a case of midwifery in which the labor was complicated by protrusion of the bladder and adherence of the placenta to the right side of the uterus.

A letter from Dr. McGill, of Iowa, reporting a case of hystero-epilepsy followed by catalepsy, which was relieved by correction of a congenital malformation of the genital organs, was read by Dr. H. M. Lyman, after which the society adjourned.

CONTRIBUTIONS.

ON THE TREATMENT OF PHTHISIS.

BY J. L. TEED, M.D., KANSAS CITY, MO.

The valuable part of medicine is the treatment of disease: everything else is only subsidiary. The sick person cares nothing for pathology and the remoter branches, nothing for diagnosis, and but little for prognosis, but he wants treatment that shall procure his restoration to health, or prolong his life with as much comfort to himself as possible. It is true that scientific treatment has all the other branches of medicine for its foundation, which lie, like range work in masonry, in distinct and successive layers from the first or most elementary at the bottom to the therapeutic superstructure, over whose entrance is the motto, "Quæ prosunt omnibus artes."

Those of us who entered the field of medicine forty years ago can well remember how the disease consumption was pronounced incurable. Much might be done to smooth the passage to the grave, but nothing to arrest it; recoveries were semi-miraculous, and received with incredulity. How different the case to-day. With the more correct and complete knowledge of structure comes a clearer insight into the nature of the disease, while with an increased acquaintance with remedial measures comes an altered treatment and a fortunate change in the results.

Ordinary phthisis pulmonalis consists of an undue proliferation of the cells of the lymph tissue in the lungs, forming a small celled growth, which may undergo several subsequent changes. First, it may undergo fatty degeneration and be absorbed; secondly, it may undergo calcareous degeneration and become obsolescent; thirdly, it may undergo caseation and subsequent liquefaction, form an abscess, open into one of the air passages, and, discharging its contents, form a vomica, thus excite collateral inflammations, enlarge by ulceration, and wear out the patient by the exhaustion of the discharge and of the fever. Pyæmia may also be produced and multiple abscesses form, or further complications in other organs may be induced.

The disease may thus be divided into two stages. In the first the cough is dry, or the sputum is only mucus; in the second the sputum becomes purulent and often contains disintegrated lung tissue. Hemorrhage may occur in both stages.

It is evident, therefore, that the earlier a patient comes under treatment the better chance he has, if treatment is to avail anything; and the self-limitation of phthisis is rather a dangerous doctrine; for he then has a chance of recovery by resolution, leaving his lungs but little injured.

In the first stage we generally find more or less dullness on percussion, generally at the apex of one or both lungs; with lessened mobility of the thoracic walls, a sunken appearance, especially on inspiration, over the dull region; inspiration wavy, expiration prolonged; increased resonance of voice and heart sounds, often a murmur in the subclavian artery of the affected side; a short, tickling cough, dry, or with mucus expectoration; some fever, with loss of flesh, and impaired condition of the general health, as the ordinary symptoms, more or less distinct in different cases.

The indications are: First, to check the fever; secondly, to arrest the cough; thirdly, to procure the absorption, or obsolescence, of the morbid growth.

The pyrexia is mainly the exponent of the local inflammation caused by the foreign growth. As long as the lung is tolerant of this, there is not much immediate danger of a rapid change for the worse; but when inflammation is once set up the condition becomes precarious. Moderate counter-irritation by tartar emetic ointment or solution, the free use of digitalis to reduce the pulse to sixty beats per minute, and to *keep it there*, rest in bed, unstimulating but nutritious diet, with quinine to keep off the pyrexial accessions, will often fulfill the first indication. The second indication may be fulfilled by the use of aqueous extract of opium in Price's glycerine, with or without a small amount of carbolic acid. This should be taken little and often in sufficient quantity to arrest the cough, and to *keep it arrested.*

The inhalation of an ethereal solution of iodine; thus, gr. ss. iod. resubl., is dissolved in one ounce of pure ether; of this solution a few drops at first, increased perhaps to a teaspoonful, may be placed in a *small* saucer laid on a warm brick and covered with a paper cone, the small end of which fits into the mouth. The large end rests on the brick and contains the saucer. The air from the cone is inspired, and expiration is effected through the nose. After a few trials this will not provoke cough on first inhaling. The best time to use this is in the morning after breakfast.

Forcible inspiration is another valuable remedy. The patient is seated with the back straight, the head erect, and the hands resting on the knees, supporting the weight of the shoulders and partly raising them. A moderately full inspiration is then made, followed by expiration; the inspiration is then

gradually lengthened, but not so much as to produce any very great strain on the air cells, or emphysema may be produced. After the inspiration has been lengthened as much as is easily borne, commence again as at first with a moderate inspiration, and again gradually lengthen it. The patient must be instructed to *go slow*, and only from one to four, or at the utmost five, minutes should be attempted at one sitting. Its safety depends on the gradual manner in which it is used. It may be practiced at first once in the day; when improvement is being made, twice; but never more than twice. In six or eight weeks the change produced in the expansion of the chest will surprise those not accustomed to its use.

The administration of cod liver oil may be made so acceptable as not to offend the most delicate stomach. First, Möller's oil only should be used, and this should be washed with cologne spirits (pure alcohol) to remove the fishy odorous part, and then the emulsion made as follows: Take the yolks of two fresh eggs, mix thoroughly with four ounces by measure of Price's glycerine; then add to this gradually eight ounces by measure of the washed oil, and mix thoroughly; add one hundred and twenty-eight (128) grains of Savory & Moore's pancreatine. If advisable, twenty-one (21) fluid drams of Merck's hypophosphorous acid may be added, with enough oil of lemon to flavor. Two or three drams of distilled water will make up the full pint of sixteen fluid ounces, (or distilled water may be used without the acid.) One teaspoonful to be taken after meals. This emulsion has scarcely any odor, and resembles lemon custard very closely. We thus attempt to fulfill the third indication, to bring on fatty degeneration and absorption of the morbid growth.

Hemorrhage from the lungs is best met by hypodermic injections of ergot, rest in bed, sulphuric acid and digitalis internally, and ice to the bleeding side.

Plenty of exercise in the open air, which should be light, dry, and rather cool; well ventilated rooms, in a well drained house into which the sun can shine thoroughly; avoidance of all causes of catarrhal inflammation, careful clothing of the body; in the evenings, if out of doors, a respirator; the head well protected, and the feet warm and dry are important auxiliaries.

The diet should be plain but nutritious, the functions of digestion and assimilation and of nutrition require the most careful attention, and, to ensure success, must be kept in perfect order. The excretions should be attended to as may be necessary.

A due amount of sleep must be secured and the time for retiring should be early.

Sponging the chest on rising, with cold water is a good preservative against catarrhal attacks. At first the water should be slightly tepid and the room should be sufficiently warmed not to cause chilliness when the chest is exposed. The sponging should be done rapidly and a good rubbing with a rough towel follow it.

Stimulants, unless a very small quantity of old dry sherry, or other white wine, may be taken sparingly. They are generally best abstained from.

Iron requires very great care in its use, it is a dangerous remedy not often needed. Frequently the suppression of the monthly flow complicates the first stage of phthisis. It need not, however, cause any alteration in the above treatment in the majority of cases; as soon as the body has enough blood to spare for it, the menstrual flux will be re-established. In some cases, however, it will need particular attention. Other special complications may be also present.

We thus place no dependence on the unaided powers of nature, and the natural tendency to self-limitation of the disease. Instead of this we attack it in front, rear, and on both flanks, and we have found that, as a result, the attack has been aborted, the dullness and immobility of the thorax have disappeared, in many cases. Practically it may be termed a recovery.

In the second stage of phthisis the symptoms are somewhat changed according to the extent the disease has progressed. The sputa have become purulent and they frequently contain eroded portions of lung tissue. One dram of sputum is shaken with two to four drams of liquor sodæ in a test tube and gently boiled till dissolved. The sediment is allowed to settle, when a small portion of it is placed on a slide and examined by a microscope, pavement epithelium from the air vesicles, ciliated epithelium from the bronchi, and elastic fibres from the air vesicles are often found. In this way the disease may be diagnosed from chronic bronchitis and bronchiectasis. At times small threads of blood may be seen crossing the sputum, or it may present the appearance of having been discharged from the surface of an ulcer, and be stained with blood in parts. The amount discharged may be quite copious or only of moderate quantity. It should be examined, however, microscopically, in every case.

Until the case is *in articulo mortis*, do not abandon treatment. The most hopeless cases will sometimes recuperate and may live for several years.

The indications are: First, subdue fever and inflammation; secondly, check the cough and arrest the discharge; thirdly, prevent septic poisoning; fourthly, prevent or arrest debilitating discharges; fifthly, promote the assimilation of food; sixthly, promote a favorable termination either by cicatrization or the formation of a pyogenic membrane round the vomica. The first indication may be often fulfilled by the free use of quinine. The cinchonism produced is unpleasant but not so dangerous as the fever.

Very small counter-irritations, say as large as a half dollar, are often useful over sore spots. The surface thermometer of Granville will often locate these foci of inflammation very accurately.

Reduce the action of the heart by digitalis to sixty beats per minute and keep it there.

Liquor ammonii acetatis is often a valuable remedy during the pyrexial accession.

The second and third indications may be often fulfilled together by combining Calvert's carbolic acid, purest crystals, with the mixture of watery extract of opium and Price's glycerine.

The fourth indication may be fulfilled, as regards night sweats, by the following pill:

℞ Zinci oxid. (Hubbuck's C. P.).....gr. j
Ext. ergot (Squibb's solid).....gr. ij
Ac. carbol. (Calvert's best crys.)...gr. j-vj

Make into one pill. Take at bed-time, and repeat in two hours, if needed. Extract of belladonna or atropia may be added.

As regards diarrhœa, perhaps the sulphate of copper with opium is the preferable remedy, or vegetable astringents may be used with opiate enemata.

The fifth indication may be met by the cod liver oil emulsion combined with the mildest pure bitters, or with pepsin and acids, or ingluvin with iron if needed (Monsel's salt) where there is but slight pyrexia and there is a free secretion of bile. All the secretions need to be attended to, all hygienic measures need to be carefully observed.

The sixth indication is largely met in a negative way. Avoid everything looking to danger, especially everything that will tend to develop a phlegmasia. Pure warm air and plenty of it; plain nutritious food; long sleep at night, with a little food (preferably digested) once; rectal enemata of defibrinated blood; stimulants if needed, care being taken that they do not cause an excessive flow of bile, nor excessive gastric acidity; the greatest personal cleanliness, with underclothes well aired and quite dry; and a change of climate will, with judicious treatment, often arrest the second stage both in its earlier and later degrees.

Any complications that arise must be met accordingly. In an attack of hepatitis thus occurring, a mild course of mercury proved the turning point of the disorder twenty-three years ago, and the patient is still alive.

Should the patient be married, the next child born will be very liable to suffer from tubercular meningitis. On the first appearance of this, small and frequent doses of calomel (gr. one-tenth) till the violence of the attack has been subdued, and afterwards from one to three or four drops of a saturated solution of iodide of potassium three or four times a day and continued for several weeks, may be employed with advantage to the child and prevent the culmination of the attack.

THE OPIUM HABIT.

BY CHARLES WARRINGTON EARLE, M.D.

Physician to the Washingtonian Home, and Professor of Diseases of Children, Woman's Medical College, Chicago.

EFFECTS ON MIND AND BODY.

Illustrating in some degree both the physical and mental effect produced upon the habituate by the constant use of this drug, I take from the Medical Record* a recital of one who speaks from his own experience. It is made by one of our profession, and while it may be full of seeming extravagances, it is nevertheless given in his own words:

"A victim to neuroses, which came as sequelæ to my prison life, I began their alleviation by the hypodermic use of morphia. Complicated with these was a functional cardiac trouble of which I had noticed how magically the morphia allayed its most distressing symptoms. Day after day, week after week, was the opiate continued, and for the first time in twelve long years, I knew what it was to enjoy pure unalloyed happiness, unbroken by a single pain. Nor cloud, nor gloom, nor slight offending to the soul of sense, naught that savors of discordant life was mine. This harp of a thousand strings in me was well attuned, and the deft harper, the morphine god, knew his business well. I had been embraced by the most beautiful sorceress of earth; beautiful in her magnetism, for I saw her not, I *felt* her charms. Her beauty I conjured up to be, by special imagination, more divine than he proclaimed his own to be, who wore a silver veil. Time came, the veil was drawn, and then a thing, she looked so black, so damned, that not in hell another could be found as horrible and vile.

To use a style that borders on the oriental may seem out of place in a paper prepared for medical readers. This is not so, for the

* The personal experiences of an ex-opium habituate, Medical Record, p. 399, Vol. xiii.

very effects of the mysterious drug, show themselves in perturbed mental phenomena that cannot be too highly colored. The morphia victim dwells after the first exhilaration is gone, in a realm of phantoms and shadows. I saw sights more terrible than can be imagined. I felt pains that do not belong to any mortal lesion. I have shrieked my terror, but the shriek only awoke a myriad of devils, who had been sleeping till then unseen by me. Four months of morphia addiction sufficed to bring me to this land of horrors, where no joy came, or has come since the making of the world. My days were spent in self-indulgences. Alone in my office in an easy chair, I could with poetry and interesting therapeutical works manage quite comfortably to pass the hours away. But let a patient summon me away from home and my gloom and despondency was almost insupportable. I was tormented by continual self-conflict. Conscious of the weakness of my efforts to emancipate myself, I kept on planning some new mode of attack, in the nerveless hope that I could defeat the Lethean devil whose thews were strong as steel, and yet I knew as day followed day, and week followed week, in so far as all this mental warfare was concerned it could bring me no help in my awful bondage.

No dark imagery can paint the encompassing horrors of those nights of torment that belonged to the last two months of my twelve month's morphia addiction. Not one hour that I passed in bed between midnight and noon did I know normal sleep. In dreams that seemed more vivid than reality, I entered gloomy caves, and walked for hours over rotten cadavers, sometimes forced to step on them and be overwhelmed with loathsome odors. I saw faces in the weird darkness, sometimes a thousand at once, and each was made of blood-red flame; they flashed and went out. My night-mared brain was chased and haunted by everything that can exist in a vast hell of phantoms."

NOT A DISEASE, BUT A VICE.

I have already expressed the opinion that the opium habit, like alcoholic excesses, is a vice. When I say this I am aware that I am expressing an opinion at variance with that believed by the majority of the profession, and one which will be called by many most unscientific. If the eminent gentlemen known as neurologists throughout the land. and those occupying the positions of medical superintendents of inebriate asylums were called upon to cast a pebble in favor of or against this theory, I know full well how the vote would stand. It is becoming altogether too customary in these days to speak of a vice as a disease, and to excuse men and women for the performance and indulgence of certain acts which not only ruin themselves and families, but brings burden on the community, simply because they are not responsible for the act, excuse them because they have a disease.

That the use of opium for a long time will produce *diseased condition* I cannot deny. This is true of alcohol. It is true of gluttony. It is true in the case of the old lady who takes an immense amount of tea. It is true of the licentious man or woman. They are all habits frequently followed with dreadful results, and in many cases lingering and incurable diseases.

That the responsibility of taking the opium or the whisky, or the gluttonous use of food, in the one, or the use of a stimulating drink like tea in the other, or the undue and unbridled gratification of the sexual passions, is to be excused and called a disease, I am not willing for one moment to admit, and I propose to fight this pernicious doctrine as long as it is necessary.

I desire to introduce here a little outside testimony, viz., 1st. Cor. 6th chapter, 9th and 10th verses.

"Be not deceived, neither fornicators nor idolators nor adulterers, nor effeminate, nor abusers of themselves with mankind, nor thieves nor covetous, nor drunkards, * * * * shall inherit the kingdom of heaven."

And yet our modern scientific advanced(?) writers on inebriety and nervous diseasse would have it that every one of all the above classes are diseased men and women not responsible for theft or drunkenness, or a habit which certainly renders its followers effeminate. They, with a certain class of temperance reformers, would give these people a front seat up in heaven, because they were diseased by taking opium or whisky, canonize them, as it were, for becoming addicted to a habit which has not only ruined themselves and families, brought desolation on all their friends, but has caused them, in many instances, to become a burden to the state.

It would be an interesting question to decide when taking opium became a disease. Certainly not when taken in small and appropriate doses, prescribed by a physician. Certainly not when taken without the advice of medical men for some pain or infirmity, which the individual well understands. It is not a disease yet, not even a vice. It is a most useful medicine in many cases, a perfect God-send, a boon let down from Heaven to allay the sufferings of mankind. But let a man use it *intemperately*, and then, according to the authorities he has this disease. Not so according to my view. It is

commencing to be a vice, as the commencement of intemperance in *all things* is the beginning of vice. All falsehood, all duplicity, all lewdness, and the like, are vices. We occasionally have an insane opium-eater, or insane drunken men and women whose minds are impaired, and it may be that their narcotics have been the cause of this aberration. But these occur so rarely, compared with the vast number whose intellects are among the best, that it is not necessary to mention them in this discussion. What I want to say is that the moderate use of all things, except so far as example and influence is concerned, will receive no criticism from me, but that their *undue* use, *intemperance* in *anything*, should be treated and punished as a vice.

REFORMATION DESIRED BY MANY.

Notwithstanding the fact that actual pain is relieved, and all the varied uncomfortable feelings of the neurasthenic dissipated, while under the influence of the drug, there comes a time in the history of almost every habituate, when he desires to be disenthralled from its terrible bondage. This comes about either from remorse or from an aggravation of the many symptoms of impaired nutrition and excretion, from heart palpitations or vaso motor disturbances, which the patient fancies are augmented by the habit, or from loss of business or the solicitations of friends. From some such causes the patient places him or herself under the physician's care.

It is from those who desired relief, and have placed themselves in the Washingtonian Home, or under my private care, that I am permitted to speak from actual observation of the symptons following the withdrawal of the drug.

MORTALITY.

It is comparatively a safe procedure. While I have seen great depression and an almost collapsed condition from the sudden deprivation of the accustomed drug, and have felt it my duty to resort to other stimulants for a short time, yet, with care, I think an opium-eater may have his narcotic taken from him with absolute safety.

Dr. Osgood, in an asylum at Foochow, China, has treated eight hundred cases, and in one hundred of these he lost but a single patient, and that death he believes to have been caused by apoplexy.

PROGNOSIS.

Relapses will occur frequently. Taking into consideration the peculiarities of the patients, that the men belong to that class who bear pain badly, and desire relief at any cost, and that the women are of the neurasthenic variety, we can hardly expect a different result. Both sexes will be in great danger of taking their accustomed drug if they become subjects of painful diseases, or from some unhappy calamity in the family. The hysterical woman and hypochondriacal man who have acquired the opium habit, must ever be on guard to prevent a return to their former most dreadful condition. If, however, a patient returns to his drug, he will do it cautiously, for one cannot commence again with his maximum dose. The recommencing dose will be small, but the maximum will be reached very quickly.

While we cannot but expect that many will fail in their efforts at reformation from causes narrated above, the general results, it appears to me are as good, or at least nearly as good as are our efforts to reform the alcoholic class.

While preparing this paper for the printer I have received a letter from a gentleman in central Iowa who was formerly a patient and addicted to the habit. He is now in a large wholesale business and says: "I am getting along nicely, only a bit nervous as you will see from my writing; feel freer, happier and better than in long years." Another letter was received from a gentleman living in an interior city of our own state, dated sixteen months after his admission to the Home. He speaks as follows: "Have rejoined my family; am engaged in business, enjoy good health, have never tasted a drop of any kind of alcoholic stimulant or taken a particle of any form of opiate since I left the institution. Am happy and my prospects for the future are bright." Other remarkable instances of reformation and restoration might be given, but I must hasten to speak of the

TREATMENT.

One of two methods must be adopted in withdrawing the drug: either sudden or gradual deprivation. Both have their advocates, but I am free to confess that I can seldom bring myself to risk the dangers, for I believe them to exist, of withdrawing at once an opium preparation which has been continued for years. I have seen very alarming symptoms follow such a procedure.

Dr. Levenstein, of Berlin, who has written a treatise on the subject, and who, according to Gaillard's Medical Journal, has treated one hundred and twenty cases of the habit, advocates sudden deprivation, but admits that during the great and dangerous prostration which is sure to follow, he gives small and repeated doses, hypodermically, of morphia. My observations are that it is not safe to withdraw the morphia at once; although it may be possible to find a drug, coca, for instance, which may make the sudden deprivation safe. I shall speak of the fluid extract of coca as a remedy later in this paper.

The patient must be absolutely under control of the physician. The friends should promise not to interfere, and usually their presence should be interdicted. *Nulla vestigia retrorsum* must be the motto of all concerned. The patient should not be allowed to visit the apartments which are to be his place of confinement during the time of deprivation, as this would give him an opportunity to conceal a quantity of his favorite drug.

Practically this entire class should be treated as if we doubted their word, although some are truthful. It is well to allow them the freedom of the house for a few hours, excepting of course, their permanent apartments; it gives them confidence, and they become acquainted with other inmates.

During this time, of course, the habituate has taken his full dose of opium. The physician has had the opportunity to get a full history of his case, the time and manner of taking, and the amount in particular. The patient usually has a small amount of opium or morphia with him which he will exhibit. It has been my custom, if it is but a single dose, to allow him to take it when he desires. That is his last dose before I take him completely in charge. I have experienced some anxiety, I can assure you, as to the probable result, as I have given permission, and perhaps witnessed a man take thirty (30) grains of morphia at one dose.

The last dose of the narcotic, the amount of which the patient is to be the judge, having now been taken, he should be searched for any he may have concealed about his person. This should be done in a quiet yet thorough manner, and in the case of a female, of course, by those of her own sex.

The habituate is now assigned to his permanent apartments, and a day and night nurse placed in charge. These apartments should have connected with them a bath room and closets, so that no excuse need be made for leaving them. The nurses should be resolute men. It may take four or five days to withdraw the drug, during which time he will suffer but little. It is after the last particle is withdrawn that the suffering commences, and whether you deprive your patient at once or gradually of his opium, there come sooner or later the following symptoms: Coryza, diarrhœa, vomiting, muscular pains, sleeplessness.

CORYZA.

This symptom makes its appearance about the second day after the discontinuance of the morphia, and while the pain is not particularly distressing, it adds to the general discomfort of the patient. The eyes are suffused, the mucous membrane of the nasal cavity is inflamed, and sneezing is frequently quite violent. Carb. ammonia, quinine and cubebs given internally, and morphia in combination with bismuth and acacia used as a snuff, are the remedies which alleviate this symptom. It will disappear in a great measure in three or four days.

DIARRHŒA.

This may become quite troublesome, inasmuch as we cannot allow any of the opium preparations to enter into the medicine with which we seek to alleviate this difficulty. The discharges are dark, and their passage attended with great pain. I know of nothing better than the ordinary astringents to meet this complication. Tr. catechu, kino and plumbi acitatis are the remedies more particularly used.

VOMITING.

This symptom comes on about the time the diarrhœa makes its appearance, and is controlled with carbolic acid, bismuth and ice.

MUSCULAR PAINS.

These pains are, in all probability, the most difficult to bear of any of the sufferings experienced, unless we except the feeling of depression, or letting down, which comes on very soon after the withdrawal of the last particle of the accustomed opiate. Hot applications are good, the hot bath particularly, and of course the different anodynes may be administered if any can be found which do not contain opium.

Iron, bark and strychnia are usually prescribed early and taken throughout the course of the treatment. Bromide of sodium has been recommended to me by an opium-eater as being of value to him. He thinks it has more than the usual value ascribed to the other bromides.

FLUID EXTRACT OF COCA.

I have tried the fld. ext. of coca, a drug recently brought to the notice of the profession by Prof. Palmer, of Louisville, as a remedy in this habit, and in hypochondria. It is of undoubted benefit for the relief of the great depression, and in those cases where the stomach will tolerate full doses, the morphia may be withdrawn almost immediately. I have treated three or four cases since my attention has been called to it, in all of which it has been of great service, although it is by no means a specific, and has no power to disgust the patient with the desire for his favorite drug. There is danger, too, that our opium patients may become addicted to the coca habit, unless some restraint is placed in regard to their taking it. A gentleman who

had been under my care several times, a victim not only to opium but to alcohol and chloral, determined to make one more trial. Upon former occasions the morphia had been gradually withdrawn, and the usual symptoms had always been experienced. At this time the finishing dose taken by himself was twenty grains of morphia. After his admission not a particle more of the drug was given, but coca substituted. About two pounds were taken during the following six days, and the ordeal through which he passed was certainly less severe than at any previous time. Three months later, however, after a trip to the Superior region and a residence at his home for several weeks, I was called early one morning to his bedside. He had taken neither opium, alcohol or chloral, but had commenced several days before upon small doses of coca, and the previous evening, feeling badly, and having become somewhat accustomed to the stimulating effect of the drug, had taken from six to eight ounces. This produced marked exhilaration, and the night was spent in walking his room. About daylight, greatly exhausted, he sank into a deep sleep, and in this condition was discovered by his parents, who summoned me as remarked above. It seems, then, that while we have in coca an agent which is of undoubted value, its indiscriminate use should be interdicted.

The principle objective symptoms, coryza, diarrhœa and vomiting, having been overcome, and the less noticeable yet constant muscular pains having subsided, there is yet one other symptom to be met and conquered, i. e.,

SLEEPLESSNESS.

It seems as if this boon should come to one after days of pain and depression, but frequently it does not. Chloral in the majority of cases will, of course, produce it, but this drug must be used with great care in this class of patients, else we cure them of the opium habit only to find them addicted to chloral or coca, or some form of alcoholic stimulant, which we have felt it our duty to administer during the withdrawing of the usual opiate.

Some of the cases I have treated have slept without difficulty, after five or six nights, but occasionally some hypnotic is absolutely demanded. It will not be safe in certain extremely nervous subjects to allow them to remain without sleep, but whatever drug is given to produce this greatly needed rest, necessarily continued for some time in protracted cases, let it be thoroughly disguised, in order to prevent, in as great measure as possible, the patient from resorting to it in the future.

SYMPTOMS NOT AS SEVERE WHEN DRUG IS TAKEN HYPODERMICALLY.

I should add, perhaps, in this connection that it seems to me that none of the symptoms which I have just described as taking place after the withdrawal of morphia are as severe in persons who take the drug hypodermically, as when the opiate is taken by mouth.

SUBTERFUGE.

During all this time I need not say that the patient will resort to any subterfuge to come into the possession of morphia. They will continue to do this until they have been free from the drug several days, perhaps weeks, and have become convinced that it is wrong for them to continue it. There is hardly a ray of hope except in the cultivation of the moral sense. If by any means a preparation of opium is obtained or taken, during the first ten or twelve days, the experienced physician or attendant will usually have no trouble in detecting it. There will be an amelioration of all the distressing symptoms. The patient is vivacious, expressing himself as doing remarkably well indeed, that he is to be cured with hardly any effort.

A gentleman from the central part of the State, had been under my care about one week, and was passing through the usual period of suffering. One morning he began to converse with great eloquence; praised the officers of the institution; said that he was *disenthralled*, and would now go home and take the lecture field. We were convinced that he had obtained morphia, and communicated to him our suspicions. With upraised hand, and with the most solemn assertions, he denied it. He felt injured and wondered that we could doubt his integrity, and much more that we could believe him guilty of falsehood. A rigid search for several hours, in boxes and beds, under carpets and in sofas was made, and we could find nothing. At last in nicely folded papers, very neatly tacked on the top of the windows, we found a little less than two drachms of the precious alkaloid. I might multiply these cases, but time will not allow.

OPIUM ANTIDOTES.

Perhaps a word should be said in regard to the opium antidotes, which are kept constantly before the people. Analyses have been made especially by Dr. Matteson, and in every case they have been found to contain a combination of drugs, which above all others we desire our opium patients to be deprived of. Opium in some of its forms, belladonna, cannabis indica, hydrate of chloral, etc., are found to be the ingredients.

Several of those under my care, have freely

said to me that while taking these antidotes they felt perfectly comfortable; they were without a single symptom which are always present when deprived of their opium preparation. Withdraw the antidote, however, and in every case the symptoms which we always notice follow the withdrawal of morphia will certainly make their appearance. This one fact is nearly incontrovertible evidence that these nostrums contain opium.

APPEAL TO THE MEDICAL PROFESSION.

In conclusion, I cannot feel that my duty is entirely performed without making at least an appeal to the medical profession.

I am afraid, my friends, that some of us use the opium preparations with too great freedom. We prescribe to allay pain, forgetful of the possible results. I am certain that we should see to it that a prescription containing an opiate is not refilled and repeated indefinitely. So firmly has the thought fixed itself on my mind that I have on my prescription blanks these words:

"If this prescription contains chloral, or any of the opium or alcoholic preparations, the druggist is respectfully requested not to repeat."

This request in the majority of cases will be respected by our pharmaceutical friends. It will accomplish more, I think, than a threat or a demand. Four brief points, and I am done.

I. Let us avoid the indiscreet and reckless habit of prescribing opiates to the nervous class, hysterical women and hypochondriacal men.

II. Have enough interest in the future welfare of our patients to advise and encourage the discontinuance of any prescriptions containing opium in any form.

III. Cooperate with the family druggist in preventing the refilling of prescriptions containing not only opiates but alcoholic stimulants.

IV. Never under any circumstances teach a patient how to use a hypodermic syringe.

OBITUARY.—Dr. Edouard Seguin died at his residence in New York City, October 28, aged sixty-nine years. Dr. Seguin was noted for the great interest he took and the work he did in the education of imbeciles. He also wrote extensively on the use of the thermometer in disease. Besides this he took a more prominent part in procuring the adoption of the metric system by the medical profession of this country, than any other one of its adherents.

DIPHTHERIA.

The Treatment by Inhalations of Turpentine, based on Thirty-One Cases.

BY DR. M. MUFFAT, WHEELING, ILL.

The age of thirty-one of my patients ranks as follows: Three between two and three years; twelve between four and five years; ten between six and eleven years; five between fifteen and twenty years, and one forty-five years of age. Of these cases but a single one died, a girl of two and one-half years of age, to whom the treatment could not be applied sufficiently. In all instances the treatment consisted of turpentine inhalations according to a method recommended by Edel (Medical Record), and by Taube (Deutsche Zeitschrift für praktische Medicin No. 36). The injections of carbolic acid, recommended by Taube, were used in two cases. Half a syringeful of a three per cent. solution was injected two or three times daily into the tonsils, but the injections were soon stopped on account of the vulnerability of the patient.

The fever was combated by a mixture consisting of quinine 0.4 to 0.6; ac. muriatic, gtt. 3; ammon. muriate solution of 6 grammes in 120 of water, of which a teaspoonful to a tablespoonful was given every two hours. Ice bags were applied to the neck, notwithstanding the prejudice of the patients, which prejudice is kept up by the popular use of hot fomentations among our country practitioners. One of my patients, however, refused the treatment, and was next reported cured by the insufflation of a powder of sugar of milk, sulphur and salicylic acid!

It might be objected that the epidemic was a very mild one, but I can only state that most of my patients showed a temperature of 104° F., when first seen, and that all had swelling of the sub-mucous tissue and of the glands. The turpentine inhalations were given every hour, fifteen drops being poured into the medicine dish, or the Codman and Shurtleff atomizer, which was then filled with water. Within one to two days the membranes shrank, the temperature was lowered two to three degrees, and the pain was removed, or at least, diminished. The fetid odor disappeared completely in twenty-four hours. Edel and Taube recommended inhalations of ten minutes' duration every hour. I am satisfied, however, with a single filling of the glass, which lasted from four to five minutes. I have seen no cures in twelve hours, like the other authors, but the six adults were well within three days. In twenty-five instances the inhalations were continued for eight days or more without the least deleterious effect.

In none of them the temperature rose again above 102° F. Usually the necrotic membranes disappeared by the eighth day, whereupon inhalations of one per cent. solution of salt were substituted for the turpentine. Accidental abrasions made by the tongue depressor or the laryngoscope were always covered with new membranes, a proof of the uselessness of swabbing the throat. In the case of a rebellious girl of eleven years, gangrene of the velum and uvula occurred on the eighth day, on account of striking it with the laryngoscope; in the same case, the rima glottidis was covered with membranes. In most patients, the nostrils were involved. The treatment consisted in two irrigations daily with a one per cent. solution of bicarbonate of sodium. In all these instances last mentioned, hæmorrhages occurred, which put the girl, in the case above referred to, in a state of collapse. Aphonia was observed six times, but disappeared in every case within two weeks. In most other instances some disturbance of speech was present.

The most awkward feature of the treatment is the resistance of small children to the atomizer. In such cases inhaling bottles may be used instead. I have used all known methods for the treatment of diphtheria, and have seen similarly favorable results from none other. I hope, hence, that this communication may lead to its trial by others. I am prompted to publish my results by the fact that even in as prominent a paper as the Chicago Medical Journal, articles may yet be found recommending the insufflation of sulphur, salicylic acid and sugar of milk. Such a remedy is not likely to be of greater benefit than the popular gargle of red pepper, molasses and vinegar.

A CASE OF RUPTURE OF THE UTERUS.

BY S. B. CHASE, M.D., OSAGE, IOWA.

President of the Iowa State Medical Society.

The following somewhat unique case has often recurred to me. Its report may not be uninteresting to your readers.

In August, 1857, I was summoned some miles into the country to consult with Dr. Wm. B. Cobb, a young, though very competent, physician. His patient was a Norwegian lady, Mrs. Oleson, about thirty years of age, in labor with her first child. The *mansion* was a *dug-out*. Her husband and an old lady were present. All had but recently crossed the ocean. Between us signs were the only intelligible language. The history of the case is as follows:

When the doctor arrived he found an arm presenting. While turning, a violent spasmodic pain seized his patient, suddenly tearing a large rent in the right side of the cervix, through which the child, a large boy, dashed into the abdominal cavity. The doctor gave an anodyne and sent for me. I found the uterus empty and contracted, lying at the left. Introducing my hand, the feet were seized and the child delivered. The placenta and clotted blood were withdrawn in the same manner. The anodyne was continued with a little pulverized opium, and the friends informed that the patient could probably live but a few hours. The next day the doctor visited his patient to find her alive, but with a rapidly increasing abdominal inflammation. The anodyne was continued in doses sufficient to insure comparative ease, and the abdomen covered with a large plaster of ung. hyd. The day following the patient remained much the same, except the inflammation increasing. The third day I again saw her with the doctor, as the case had become exceedingly interesting. We found her with an enormously distended abdomen, lying in the hot sun from the only window in the place, sweating profusely, and yet pretty happy. The treatment was continued. The inflammation gradually abated, and within a few weeks health was entirely restored.

To the astonishment of us all, within a year the lady was again pregnant. Much anxiety was felt as to the outcome. The uterus had been entirely severed, to all appearance, at its cervical and vaginal attachments, except a small portion on the left side. Union had not been thought possible so that pregnancy could again occur, although menstruation had continued as usual. At her second labor, in the absence of Dr. W. B. Cobb, his brother, Dr. S. M. Cobb waited upon her. Knowing the history, as soon as the os was sufficiently dilated, without waiting or permitting exhaustive pains to accomplish the work, provided they could safely do so, the doctor applied the forceps, and delivered her of a fine boy. The father, mother and son yet live.

THE Medical College of Virginia has now adopted the graded system, and extended its lecture course to nine months. It is rumored that the medical college of the University of Virginia will also take this first step in the reform in medical education.

GAILLARD'S MEDICAL JOURNAL advocates strongly, as the only solution to the problem of the irregularity of American medical education, an absolute divorce of the licensing from the didactic power. This sounds original.

CORRESPONDENCE.

LONDON LETTER.

London, England, Oct. 15, 1880.

AMERICAN PHYSICIANS ABROAD—DR. BEARD, OF NEW YORK, AND THE QUESTION OF PRACTICE ON BOARD STEAMERS—HIS DEFENSE—PROFESSOR GROSS AT CAMBRIDGE—HIS RECEPTION IN ENGLAND—DR. MARION SIMS—HIS PERIPATETIC CAREER ABROAD—THE ESTIMATION OF HIS CHARACTER AND LABORS.

Throughout Europe the season of medical congresses has set in with its usual severity. The annual meeting of the British Medical Association is just over, and its proceedings are still in course of publication. It was a considerable success, both in point of numbers and in excellence of scientific matter. Several well known American physicians were present. Dr. Beard was in full force on his favorite theme of the somewhat vague disease which he has had the honor of christening "Neurasthenia," but his personal success was somewhat marred by a severe attack which has been made on him by Dr. J. Fourness Brice, of the steamship "Germanic." Dr. Brice has charged Dr. Beard with breach of professional propriety in pursuing a medical practice on board a steamship without prior communication with him. He complains that Dr. Beard wrote to the owners of the ship, requesting that some pounds' weight of various hypnotic drugs should be supplied, and, on arriving on board, proceeded to institute a missionary effort in favor of his particular mode of bromising those who go down to the sea; substituting a chemical shield in place of the Horatian shield of brass which, in more classical times, was supposed to be needed for those who braved its perils; not that, according to Dr. Brice, he considers the New York neurologist to be deficient in that metal, for he intimates that throughout the journey Dr. Beard continued his professional pursuits without reference to the surgeon in charge of the ship and its passengers, and went so far as to send his prescriptions to the dispensary for the ship surgeon to make up. It was apparently at this point that Dr. Brice drew the line, and he animadverted upon the conduct of Dr. Beard in very severe terms. Dr. Beard has offered a defence which includes what the lawyers call "confession and avoidance," a mode of meeting the charge which is not generally considered satisfactory. He confesses to having done all that Dr. Brice charges, or nearly all, but he offers explanations as to the purely scientific and philanthropic nature of his pursuits, and disclaims any intention of behaving discourteously to the surgeon of the ship. Dr. Brice had referred to a pamphlet on sea-sickness, said to bear the facetious title of "Oh, My!" Of this Dr. Beard makes no mention. On the whole the circumstances have rather clouded the prospects of the future reception of this profuse author on future occasions.

The hero of the meeting was Professor Gross, who had arrived in London a week or ten days before the congress, having crossed the Atlantic, it was understood, expressly and solely to receive the very high honor of the honorary degree of doctor of law from the University of Cambridge. He had similarly, on the occasion of a former meeting of the British Medical Association, at Oxford, been one of those select persons on whom the university, by way of showing honor to the medical profession, had conferred a like degree. I suppose there is probably no other American who holds this extremely honorable and rarely conferred degree from both the ancient Universities of Oxford and of Cambridge. Prof. Gross, however, represents the type of American whom Englishmen delight to honor. In person he belongs to a type which we recognize here as especially American: tall, manly, with features cast in a semi-classic mould, but sharpened by the struggles of modern life, set firm with resolute thought, and stamped with the furrows of a lifetime of intellectual contest and professional cares. His text book has long been well and favorably known here. His doctrines are recognized as those of a master well grounded in large principles and conservative in their application, but yet free from the retrogressive egotism which sometimes marks the elder teacher of a profession, and sufficiently catholic to accept ambassadors of progress bearing good credentials from whatever nation and from whatever class of the profession. He, too, has a fair share of the easy and graceful speech which cultured Americans seem to display at social gatherings, more frequently perhaps than the men of any other English-speaking race, and thus, after a week of thorough fêting in London, he received at Cambridge an ovation paid to himself not less than to the nation which he represents. Without exaggeration I may certainly say that there are no guests more welcome at English meetings than the cultivated representatives of American medicine and surgery.

Among others who were present was Marion Sims, who has a host of affectionate friends in England, and as many patients as in other countries, so that it is sometimes difficult to decide whether he ought to be con-

sidered as practicing in New York, in London, or in Paris. His career has certainly been a remarkable one. It has no parallel in our country. I know of no Englishman who has ever succeeded in making a practice at the same time in the old world and the new, and certainly it would be impossible to point to any man who has succeeded, as does Marion Sims, in carrying on a practice simultaneously in the different capitals of Europe and in America. At first some prejudice was created by this itinerant habit, but it has worn off, and in him also we begin to recognize a special type of restless activity and cosmopolitan adaptiveness. Those who have seen him under the most various circumstances, concealed beneath the uniform of an ambulant surgeon in the Franco-German war, at the head of a thoroughly well organized French establishment in a Parisian flat, blandly listening to the prattle of aristocratic Parisian women, and his simple reply in one or two words of very bad French, or operating in the hospitals of London or Vienna, can but report of him as being always natural, always himself, and yet never out of place or below his situation. With an empress or with a duchess, with a country doctor or with an English farmer's wife, he is always earnest, simple and unaffected, dependent upon his own study of the situation and of his own gentleman-like instinct in dealing with it. His very success in the science and art which he has done so much to advance appears to have depended more on this simple thoroughness than upon any great scientific achievement. He seems from the first to have made up his mind never to work in the dark, never to do anything with his hands, any more than he would say with his tongue, that savored of a false pretence. Thus it was that in operating upon vesico-vaginal fistula, he was never content until he found that form of speculum and those instruments which would bring the whole part easily into view and enable him to operate with as much certainty and by as simple means, and in as full a daylight upon the inner recesses of the vagina as upon the surface of the face. To this principle is due the introduction of his famous swan-bill speculum, his method of dividing the cervix, his use of the silver suture and all his various modifications of instruments which have given him so much honor and success as an operator. I emphasize these points because it may perhaps be interesting to you to know how the character and doings of some of your best known American physicians strike an English observer, and what is the secret of the success which they attain when visiting our shores.

BELLEVUE HOSPITAL REPORTS.

Notes of Treatment.

INTERMITTENT FEVER.

At this season of the year malarial fever of the intermittent type is very prevalent, and many cases are seen in the hospital. In some of these the disease has been allowed to go on without treatment for several weeks, and the patients present themselves in a very anæmic condition. Quinine is of course relied upon chiefly; thirty grains a day, in three doses, usually proving sufficient to arrest the chills. It is often found that, where the case is one of long standing, good effects are secured by combining capsicum and opium with the quinine. A powder is given containing quiniæ, gr. x, Capsici, gr. vj, Opii, gr. j, about three hours before the chill is due. This powder may be divided into capsules, or may be given in coffee, which disguises the taste as well as anything. If the intermittent fever is of the tertian variety, quinine is given on the odd day, and the powder on the day of the chill. If it is quotidian, quinine is given at night, the powder in the morning. The use of hypodermic injections of pilocarpine during the chill has been employed in many cases as described in a recent number of the Review. A new remedy has been tried successfully in some cases, to arrest the paroxysm or to shorten its duration, viz., thirty drops of the spirits of chloroform in a teaspoonful of glycerine. This may be given safely in cases which have no cardiac symptoms, and it has stopped the chill in some instances promptly. In the treatment of intermittent fevers in infants it is often impossible to use sulphate of quinine, as it produces great disorder of the stomach, and the child may refuse to take its nourishment, as well as to take the second dose. Some mothers, under these circumstances, will object to forcing the remedy down. In these cases it is recommended that the tannate of quinine be employed in doses double those of the sulphate. It rarely produces any nausea or vomiting, and the taste can be readily concealed by mixing the drug with chocolate. If to half a teaspoonful of chocolate the requisite amount of the tannate be added, and the whole stirred into a little water or milk, the child will not object to the dose. The anæmia of this class of patients is treated with the tincture ferri chloridi, and in children's cases it is found best to add to this Fowler's solution in drop doses. Cod liver oil in emulsion is also largely used, and the emulsion which is now employed is made by mixing equal parts of cod liver oil and lime-water, and adding a small amount of oil of wintergreen to flavor.

Where patients are not poor, more expensive emulsions may be ordered, but this is as efficacious as any.

DRY PLEURISY.

In cases of dry pleurisy the cough is often a distressing symptom, and unlike a cough with expectoration, does not relieve the patient. It is supposed that this cough is reflex, due to irritation of the plural surfaces, produced by the motion of the chest-wall. The treatment is therefore directed to the cause, and the movement of the ribs is arrested by strapping the thorax with adhesive plaster on the side affected. This method of treatment often gives a surprising amount of relief, not produced by the ordinary method of counter irritation. As the cough in the initial and final stages of pleurisy with effusion, may also be due to a similar cause, the treatment is applicable in these cases also. When it is found by the patient that the cough is less when he is lying upon the affected side, thus partially immobolizing it, the indication for strapping the chest is considered positive.

TYPHLITIS.

A case of typhlitis, in which the diagnosis was made by Dr. Loomis, from pain and tumor in the right iliac fossa, with constipation and temperature of 103°, was treated successfully by distending the colon with large enemata, the patient being placed in the knee-chest position during the injection. Hot fomentations were applied over the abdomen, and opium and belladonna given to quiet the pain. After the second enema the hardened mass became broken up, and came away with little irritation to the gut. This means was preferred to that of catharsis, to obviate any possibility of peritonitis, it having been found that the administration of powerful purgatives is liable to produce decided irritation of the already inflamed intestine. The enema used consisted of starch and warm water. It was suggested that laudanum might have been added to further quiet the inflammation and pain.

DRESSING SLIGHT WOUNDS.

In dressing slight wounds, simple cerate or vaseline have been in constant use for some time. Of late, however, carbolized oil has been substituted for these, and has given great satisfaction. The proportion of carbolic acid to olive oil is one to sixteen, and it is found that the two will mix readily, and the effect of the acid is permanent, since it does not evaporate from the oil as it will from water. Its local action is soothing, both from the bland nature of the oil and the slightly anæsthetic effect of the acid. It makes a clean dressing when applied to the surface of a wound upon a piece of lint or oakum, and not only keeps the wound clean, but at the same time disinfects it. One case of a severe scalp wound, has pro
under this dressing alone, and it is now used as the only dressing after small amputations and operations.

ULCERATING SURFACES AND ABSCESSES.

In ulcerating surfaces and abscesses which show no tendency to close, the treatment must be directed toward the production of healthy granulations. This is often difficult to accomplish, and various applications are employed to stimulate the surface. Balsam of Peru is used largely in the hospital for this purpose. Where this does not succeed the following combination is usually successful:

℞ Hydrargyri nitratis.....gr. xx
Iodoformi.....gr. xxx
Camphoræ.....ʒij
Balsam Peru.....ʒij
M. Sig. Stimulating balsam.

Chloral hydrate may be substituted for the camphor in the mixture. This is applied to the surface, or injected into the abscess after the latter has been thoroughly washed out with carbolized water once a day, and rarely fails to stimulate the growth of healthy granulation tissue. When œdema sets in around a wound, and there is danger of cellulitis, the part is kept moist by frequent application of lint wet with lead and opium wash, as this is more efficacious than any other lotion. The proportions of the lotion are one ounce of tincture of opium to half an ounce of subacetate of lead in half a pint of water.

NEW TREATMENT OF ABSCESSES.

In the wards of Dr. Stephen Smith a new treatment of abscesses has been very successful. When the abscess points it is opened and the contents evacuated. The cavity is then injected with carbolized water, and over-distended for two or three minutes. The water is then pressed out and over the whole area undermined by the cavity, small dry compressed sponges are laid and bound down with a bandage. Carbolized water is then applied to the bandage and injected between its layers until the sponges are thoroughly wet, after which a dry bandage is applied over all. The sponges by their expansion make firm and even compression upon the walls of the abscess and hold them in perfect apposition, thus favoring a union. The dressing is left on for five or six days, unless there is constitutional disturbance or pain in the seat of the former abscess. It is found, in most cases, when the bandage is removed, that the abscess has completely closed by a approximation of its walls, and the exter-

nal wound heals readily under a simple dressing of carbolized oil. A case was recently seen where this admirable result was secured in a child, although the abscess was a large one, originating in caries of the head or the femur, and opening on the outside of the thigh. After over-distension the sponge dressing was applied, and on its removal, after five days, during which time there had been no constitutional disturbance, the cavity of the abscess had entirely closed, no pus had been discharged, no fluctuation could be felt in any position, and no evidence of a reaccumulation has since appeared. Dr. Smith has treated mammary and submammary abscesses in the same way with good results, and in a number of the wards this method is employed in the treatment of small abscesses which may result from irritant hypodermic injections.

OLD SPRAINS.

Cases of old sprains of the ankle or wrist occasionally give physicians some trouble, as the pain and stiffness remain for a considerable time. In such cases Dr. Smith considers that rest is the chief object to be secured by treatment. Liniments are often recommended, but are of little use. Absolute immobility of the joint for some time must be obtained. For this purpose he prefers the glass dressing made with the silicate of soda. The application is a simple one. The joint is bandaged lightly with a soft flannel bandage, over which a single layer of cotton bandage is applied. A thick coating of the silicate is then put on with a brush, it having been warmed, and by this means made fluid before its application. Another cotton bandage is placed over the first layer of the silicate and a second layer applied over this. The time required for the firm setting of the dressing is several hours, as this is effected by the action of the carbonic acid in the air during the process of cooling. Hence it is only applicable to those cases where the limb remains in its natural position, and cannot be used where extension is to be maintained. Its advantages over plaster of Paris and starch bandages are its absolute hardness, which is equal to that of glass; its great strength, and its light weight. These qualities, and especially the last, have commended it in such cases as required long continued immobilization. It is not to be used immediately after a sprain, as the swelling must be allowed to subside before it can be firmly applied. It is in chronic cases that it gives greatest satisfaction, by preventing any motion of the overstretched ligaments, and by rest securing recovery. S.

New York reports 198 deaths from contagious diseases in the week ending Oct. 23.

REVIEWS.

A Treatise on Common Forms of Functional Nervous Diseases, By L. Putzel, M.D., Physician to the Clinic for Nervous Diseases, Bellevue Hospital, Out Door Department, Visiting Physician for Nervous Diseases, Randall's Island Hospital, etc. New York: Wm. Wood & Co., 1880. W. T. Keener, Chicago.

This work, under the head of Functional Nervous Disease, treats at some length of the subjects of chorea, epilepsy, neuralgia, and peripheral paralyses. The selection of these subjects as well as the omission of some others, such as hysteria, is rather surprising, and the author, in his preface, appears to recognize this fact. Allowing the legitimacy of the term "functional" as applied to disease, to which there are some valid general objections, it might have been with propriety left off the title of this volume. Apart from this peculiarity, which amounts to a sort of false introduction to the public, the book does not call for very severe criticism. It is not by any means a work of genius, and its treatment of some subjects, for example the pathology of neuralgia is certainly far from exhaustive, but it is for the most part practical, and is likely to be useful to its possessor.

A Practical Treatise on Tumors of the Mammary Gland, embracing their Histology, Pathology, Diagnosis and Treatment, by Samuel W. Gross, A.M., M.D. New York: D. Appleton & Co., 1880. Jansen, McClurg & Co., Chicago.

This book is evidently the outcome of considerable literary research, large personal experience and patient observation, both clinical and histological. The author has produced a concise epitome of the present knowledge of this subject. He has made sixty-five cysts and nine hundred and two neoplasms, microscopically examined, the material for his analysis, and the basis of the statistics from which his deductions are drawn. An encouraging feature of his work is the apparently well-based conclusion that carcinoma may be permanently relieved by early and thorough operations, repeated as often as the growth reappears. His reported cases of final recovery under this treatment carry with them the evidence of reliable microscopic examination. Of the thirteen chapters, the eleventh and twelfth, one on diagnosis and the other on treatment, are eminently satisfactory when viewed either from the practical or scientific standpoint. They are clear and concise, and will be specially welcomed by the practitioner who wants to know what he has to deal with,

and how he ought to deal with it. The certainty and definiteness with which the author speaks at times almost causes one to suspect him of being unreliable, yet his precepts are generally so well supported that they almost carry conviction with them. For example, he says:

"As fibrous tumors are absolutely innocent, if their true nature be determined, they may be let alone; but my advice is that they be extirpated if they begin to grow. The conservative surgeon should remember that a progressively increasing tumor is to be extirpated, and that no time is to be lost in deciding upon its intricate nature. A tumor, not carcinoma, which attains the size of a walnut in six or seven months, is a fibrous sarcoma, and should be subjected to the knife."

Most satisfactory has been the author's experience in the early, repeated and thorough extirpation of malignant growths. The book contains much to praise and little to blame.

THE ARMY.

Official List of changes of stations and duties of officers of the medical department, United States army. from October 13, 1880, to October 28, 1880.

Spencer, W. C., major and surgeon. Assigned to duty at Fort Snelling, Minn. S.O. 129, Dept. of Dakota, Oct. 25, 1880.

White, C. B., major and surgeon. To report in person at the expiration of his present leave of absence, to the adjutant general of the army, for special duty in connection with the recruiting service. S.O. 229, A.G.O., Oct. 25, 1880.

Caldwell, D. G., captain and assistant surgeon. Assigned to duty as post surgeon at Fort Fred Steele, Wyoming T. S.O. 98, Dept. of the Platte, Oct. 20, 1880.

Lippincott, H., captain and assistant surgeon. Granted leave of absence for six months. S.O. 218, A.G.O. Oct. 12, 1880.

Matthews, W. C., captain and assistant surgeon. His assignment to duty at cantonment on Uncompahgre river, Colo., revoked, and he is assigned to duty at Fort Wingate, New Mexico. S.O. 229, Dept. of the Missouri, Oct. 16, 1880.

Forney, G. H., captain and assistant surgeon. When relieved by assistant surgeon Matthews, to proceed to Fort Lyon, Colo., and report to the post commander for duty. S.O. 229. C.S., Dept. of Mo.

Shannon, W. C., captain and assistant surgeon. Granted leave of absence for six months, S.O. 220, A.G.O., Oct. 14, 1880.

Cunningham, Thos. A., 1st lieut. and assistant surgeon. Granted leave of absence for six months, with permission to go beyond sea. S.O. 227, A.G.O., Oct. 22, 1880.

Burton, H. G., 1st lieut. and assistant surgeon. Granted leave of absence for two months, with permission to apply for one month's extension. S.O. 230, A.G.O., Oct. 26, 1880.

Gibson, R. J., 1st lieut. and assistant surgeon. Relieved from temporary duty at Fort Leavenworth, and assigned to duty at the cantonment on Uncompahgre river, Colo. S.O. 229, C.S., Dept. of Mo.

BOOKS AND PAMPHLETS.

Sarah Hackett Stevenson, M.D. The Physiology of Woman, Embracing Girlhood, Maternity and Mature Age, with essays. Chicago: Cushing, Thomas & Co., 1880.

Joseph Jones, M.D., New Orleans, La. Acts of the Legislature of Louisiana, Establishing and Regulating Quarantine for the Protection of the State; organizing and defining the powers of the Board of Health, and regulating the practice of medicine, midwifery, dentistry and Pharmacy: also rules and regulations of the Board of Health of the State of Louisiana, and health ordinances of the city of New Orleans, collected and classified in accordance with resolution of the Board of Health of the State of Louisiana, September 2, 1880, by Joseph Jones, M.D., President of the Board of Health of the State of Louisiana.

Mrs. Eliza A. Pitkin. Invalid Cookery; a manual of recipes for the preparation of food for the sick and convalescent, to which is added a chapter on Nutritive Enemata and Practical Suggestions for the sick room by Mrs. Julia A. Pye. Jansen, McClurg & Co., Chicago, 1880.

S. B. Chase, M.D., Osage, Iowa. Mental Therapeutics; a paper read before the Iowa State Medical Society, at its session held at Davenport, June 5, 1879. Reprint from transactions, Vol. iv.

J. G. Meacham, Jr., M.D., Racine, Wis. Presentation of the Funis, with notes of ten cases. Reprint from the transactions of the State Medical Society of Wisconsin.

R. Ludlam, M.D., Chicago. Leçons Cliniques et Didactiques sur les Maladies des Femmes. Tradintes pas les Docteurs A. Claude et C. N. Dorion. Paris: V. Adrien Delahaye et Cie., 1879.

Beverly Robinson, A.M., M.D, A Practical Treatise on Nasal Catarrh. New York: Wm. Wood & Co., 1880. W. T. Keener, Chicago.

Lionel S. Beale, M.B., F.R.S., London, England, On Slight Ailments; Their Nature and Treatment. Philadelphia: Presley Blakiston, 1880; Jansen, McClurg & Co., Chicago.

J. G. Meacham, Sr., M.D., Racine, Wis. Honor to Medical Men. Being the Annual Address before the State Medical Society, by the President. Reprint from the Transactions of the State Medical Society of Wisconsin.

Chas. B. Kelsey, M.D., 48 East 30th-st., New York, N. Y. Annual Report of the Infirmary for Hæmorrhoids, Fistula, and other Diseases of the Rectum. Dispensary Building, 304 East Broadway, New York, N. Y.

Wood's Library. Morell Mackenzie, M.D., London. Diseases of the Pharynx, Larynx and Trachea. New York: Wm. Wood & Co. 1880; W. T. Keener, Chicago.

Protection of the Insane. National Association for the Protection of the Insane and the Prevention of Insanity. 1880.

Missouri State Medical Association. Transactions of the Medical Association of the State of Missouri at its twenty-third Annual Session, held at Carthage, Mo., May 18, 19 and 20, 1880.

J. Wickham Legg, M.D., F.R.C.P.L. On the Bile, Jaundice and Bilious Diseases. New York: D. Appleton & Co., 1880; Jansen, McClurg & Co., Chicago.

Thomas F. Rumbold, M.D., St. Louis, Mo. Hygiene and Treatment of Catarrh. Hygiene and Sanative Measures for Chronic Catarrhal Inflammation of the Nose, Throat and Ears. Part I. St. Louis: Geo. O. Rumbold & Co., 1880.

Chicago Medical Review

PUBLISHED ON THE FIFTH AND TWENTIETH OF THE MONTH.

E. C. DUDLEY, EDITOR.

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CHANDLER & ENGELHARD, Publishers.

BUSINESS OFFICE, 60 WABASH AVE. (Branch Office, 245 Broadway, N. Y.) EDITORIAL OFFICE, 70 MONROE ST.

VOL. II. No. 10. CHICAGO, NOVEMBER 20, 1880. $2.00 A YEAR.

THE PUBLIC LIBRARY.—Nearly ten years ago our city suffered the greatest calamity known to modern times. We all know the history of the unparalleled liberality which the civilized world showered upon us. We remember also how the authors and publishers of England, and of the other portions of Europe, under the enthusiastic leadership of Thomas Hughes, contributed the products of their pens and of their presses; and we know that the books thus obtained formed the nucleus of our present public library, now numbering nearly seventy thousand volumes. As the books accumulated it became a question what to do with them, or, in other words, where to found our public library. Taking advantage of the then general spirit of liberality toward Chicago, the Hon. Chas. B. Farwell induced Congress, of which he was a member, to exchange the old post office building for the "Bridewell" lot, with the express understanding and implied agreement that the newly acquired property should forever be dedicated to the use of the public library. In fact, the members of Congress distinctly understood that they were all but donating the old post office property to the city of Chicago, as a site for the library. It was found, however that the title to the old Bridewell lot vested in the board of education, hence the board had the right to demand, and did demand, that the title to the post office property should pass to them. Accordingly the property was deeded to the board of education, yet with the distinct understanding that it was to be used as a public library only. And this understanding was something more than a cold blooded business transaction on the part of the principal parties interested. 'On the one hand was a community composed of a quarter of a million people, struggling as best they could, to rebuild their homes, their shops and stores, and their public institutions; on the other was a Congress, composed in the main of public spirited men, who represented and gave material expression to the large hearted liberality of a noble constituency. Between these two principal parties, who were the real and only parties interested, or who had any rights in the premises, there unfortunately happened to be a board. This board was made up of a few mediocre citizens, most of whom were never heard of before, never have been heard of since and never will be heard of again; collectively they were known as the Board of Education. They were appointed to carry out the will and purposes of the sovereigns, the people, of Chicago; and it was and is the purpose of the people of this city, expressed over and over again, in printers' ink, and orally, and in every possible manner, that the old post office building should be acquired and used for the purpose of a public library, and for

that purpose only. And such was the disdinct understanding, in fact, practically the distinct agreement of the people of Chicago to and towards Congress; an agreement just as binding and imperative, in as far as all decency and honorable dealing is concerned, as though it were reduced to dry, legal phraseology, and signed by every legal voter of Chicago, and every member of Congress.

But the result has been exasperating, disgraceful, dishonorable and thoroughly mean, on the part of that little body of little men, known as the "Board of Education." For several years the old post office building, owned by the city of Chicago, and controlled by the Chicago board of education as custodians merely, was leased and operated as a theatre of questionable repute! More recently the city of Chicago, through its board of education, has elevated the standard of both morals and education, by leasing its public library building as a really respectable theatre, thus indicating that the spirit of progress is abroad in the land, and that the board of education is fully alive to its high privileges and opportunities. But the process of "evolution" on the part of our board of education did not stop here, with the establishment of a decent theatre. Quite recently our public library building has been leased to a banking corporation, which corporation graciously promises to add a few attic stories to the edifice shortly to be built, which attic stories the library may occupy at an exorbitant rental. It is surprising, indeed, that the "Board" should have taken so vast a stride in the advance. We cannot understand why they should jump at once from a theatre to a bank; judging these noble conservators of public education by their past record, we should certainly have expected a pawnbroker's shop, or otfery office, between the theatre and the bank. Granting Darwin's demand of "unlimited time," "evolution" may do something for the Chicago board of education yet.

This whole business is a most contemptible piece of pettifogging; it is a disgraceful maladministration of a solemn trust; it is a dishonorable violation of an agreement, and an agreement none the less binding because it happened to be a matter of honorable understanding, rather than a matter of record. Honorable men in Congress thought they were trusting honorable men out of Congress, but they were mistaken.

We are discussing this matter in the interests of education; a matter in which a medical journal has a direct and vital interest. Nothing which pertains to popular education is foreign to the purposes of a medical journal; no class of citizens have a more lively or intelligent interest in the general dissemination of knowledge than physicians. In the name of the learned professions of Chicago, we demand that our public library which has now grown to such respectable proportions, be carried to its home; and that the will of the people in this and all other matters be regarded by the board of education as the supreme law. We shall return to this matter in our next issue.

Psychological Expertness with a Vengeance.—It is nearly three years ago that the New York Neurological Society, first put itself on record in favor of a scientific reform in lunatic asylum management. Since that time its members have written voluminously in favor of this reform, and the better class of medical journals over the entire country have given them a hearty support. We need but instance the editorials in the American Journal of Mental and Nervous Disease, and the British Journal of Mental Science, to exemplify the general professional voice in this matter. Three times has the American Association of Asylum Superintendents met since then, and although the members of that venerable body have not neglected any opportunity to decry the asylum reformers in private circles, they have been singularly silent in public, in relation to all points raised by their opponents. To this silence there have been two notable exceptions. The first was a published personal attack on one of the prominent members of the New York Neurological Society, and has formed the basis of a libel suit against the superintendent publishing the libel. The second is the only instance in which a superintendent has assaulted the asylum reformers on even pretended scientific grounds. For this reason it merits some

notice. The superintendent in question ridicules a former president of the New York Neurological Society, for having stated on a certain murder trial that delusion was not a test of insanity, and subsequently, in the Gosling case, testifying that delusions were indications of insanity. The old simile of the mote and beam is very applicable here; that superintendent is to this day evidently not aware that there is a difference between a delusion in the ordinary every-day sense of the word, as for example the false beliefs held by whole nations or by individuals, and an insane delusion as used in a psychiatrical sense. The former president of the New York Neurological Society testified as an honest witness should have testified. In the murder case mentioned, the "insanity dodge" was tried, and a false belief was crammed into the elastic conception delusion, whereupon the lawyer for the defence asked him whether delusion was a test of insanity. The witness answered that it was not. This evidence was scientific evidence, and the superintendent and his colleagues who testified the other way, were simply each and all of them guilty either of ignorance or something else; at all events they assisted in an attempt to defeat justice. The superintendent, whose cheap witticisms and small talk consequently fall back on himself with double weight, could afford to permit a merciful oblivion to shroud his own expert career and that of certain of his colleagues. He testified to the sanity of one murderer, whose brain the autopsy showed to present the characteristic lesions of insanity. In one of his lectures he detected evidences in lunatics that man must have descended from the horse and sheep. One of his colleagues pronounced the parricide Walworth insane, and discharged him from his asylum in a few months, to practice law in the very city where the asylum is located. In this very case the president of the New York Neurological Society had been called by the defense, and had declined to go on the stand to testify to the insanity of a murderer, of whose full sanity he was convinced at the time, and every competent judge is convinced of to-day. We look upon the very weak exhibition of the superintendent criticizing those whose scientific fame is the pride of the American medical profession, as the natural outcome of the disappointment which he and his colleagues confess to feel in regard to the calling as experts of those who are not superintendents of asylums. In other words it is due to a trades-union sort of spirit, and as such should be properly condemned. On the other hand, that such an exhibition of envy and ignorance could be made so publicly, is clear proof that the intelligent members of the bar are beginning to recognize that the American Association of Asylum Superintendents does not contain all the scientific psychiatrists of this land. We look upon this as the first step towards the purifying of our expert system.

Heroic Dosing.—The following prescription is given in a paper on the cure of a case of trigeminal neuralgia of six years standing, in the Medical and Surgical Reporter, of November 6:

℞ Aconitiæ (Duquesnel's).....gr. ¼
Glycerinæ.....ʒi
Alcohol.....ʒi
Aquæ Menthæ Piperit.....ʒii

M. Sig.—One tablespoonful t. i. d.

"The therapeutic effect was striking." We should think it ought to have been. A tablespoonful is supposed to equal about one-third to one-half of a fluid ounce, and there were, therefore, in the above mixture, four and possibly five, doses of the size directed, containing say one twentieth of a grain of Duquesnel's aconitia in each dose. Our own experience has taught us that one-tenth of this amount is as much as it is safe, or at least pleasant, to use of this agent in the beginning of treatment. We have seen decidedly alarming, if not dangerous, effects from a single beginning dose of one one-hundredth of a grain, and the committee of the New York Therapeutical Society, who were the first in this country to call the attention of the profession to the remedy, say about the same as to the dangers of its use. Shall we never be able to instil a little caution into the pages of the Medical and Surgical Reporter, in the administration of powerful alkaloids, such as morphia and atropia? At present, we can only caution its readers, since most heroic dosers seem to be among its contributors.

Illinois Pharmacy Law.—Plans are making to secure a pharmacy law in this State. These plans are to be considered by a convention of Illinois druggists, which will be held in Springfield early in December. The draft of a law will then be submitted for revision and adoption. The call for this convention has been signed by over six hundred druggists, from which it may be presumed that the pharmaceutical profession is enthusiastic in its endorsement of such an act. It is not at present contemplated that the law shall be retroactive, that is, it will not compel the examination of those who at the time of its enactment may be practicing pharmacy. Such a concession we must regard as unfortunate, unless the passage of the law depends npon it. It is clear that the concession is made to forestall any opposition which might otherwise arise, and which might justly be urged by druggists and pharmacists having invested capital, because an examination would place that capital in jeopardy. But it should be retroactive in so far as to exclude, if possible, any charlatans who may make haste to embark in the drug business while the passage of the act is pending, in order to escape examination after its anticipated enactment. This act, as we are informed by the editor of the Druggist, contemplates the creation of a State Board of Pharmacy, to be appointed in accordance with a plan much more dignified and desirable than that adopted for the medical profession in the State Board of Health act. This pharmacy board is to consist of five members, to be selected by the Governor from ten candidates nominated by the State Pharmaceutical Association. The duties of this board shall be to grant certificates, which shall depend either on graduation in pharmacy, or upon a satisfactory examination. All expenses connected with the enforcement of this act shall be paid from fees and penalties. The law will contain an adulteration clause for the protection of the public from impure or diluted drugs, and also, it is intended to contain a clause for the protection of physicians against the improper filling of prescriptions. If these two latter clauses shall gain either the silence or support of the public, and the silence or support of the medical profession, it is probable that their chief objects will have been realized. They are evidently and properly included for the sake of policy. The benefits to be derived from such an act, to the medical and pharmaceutical professions, and to the public, particularly the last, should command for it a universal endorsement.

Alleged New Parasites in Beef.—M. Poincaré, at a recent meeting of the French Academy of Sciences, claimed the discovery of a new parasite in beef, which is of a cylindrical shape, is conical at either extremity, and contains a granular mass. The discoverer thought that it was the embryo of an hitherto unknown variety of tape-worm, but Meguin, in a communication to the Biological Society, claims that there are no grounds for this view, and that the parasite is not unknown to science, being identical with the parasites found by Miescher in the muscles of the horse. Whichever observer is correct, it seems that the parasite is common enough, for they seemed to find no difficulty in finding specimens in nearly every butcher's shop. It seems an important question to be determined whether it is a tænia embryo or not, and we think it would not be difficult to settle the question by feeding experiments.

The Tri-State Medical Society of Illinois, Indiana and Kentucky, convened in Louisville, Kentucky, November 9, Dr. H.B. Buck, of Springfield, Illinois, in the Chair. The ordinary routine work of meetings of this character was transacted; addresses of welcome, president's address, and papers of all kinds, good, bad and indifferent. While we would not question the well-known ability and eminence of the president, we must admit, with regret, that as a presiding officer he has not distinguished himself. In addition to the confusion ordinarily incident to a meeting of this kind, may be noticed that which, on this occasion, came from the venders of drugs and instruments, whose tables were permitted to stand in the very hall in which the meeting was held, and who were permitted to ply their vocation during the reading and discussion of papers. It was the old story over again of the money-changers in the temple

The Treatment of Progressive Septic Phlegmonous Inflammations, by multiple incisions and scarifications, as practiced in Volkmann's clinic, is treated of by Dr. P. Kraske, in the Centralblatt für Chirurgie, No. 17, 1880. For a long series of years the following treatment has been applied to all the cases of progressive septic phlegmonous inflammation, which were brought into the clinic. In every case where amputation was not yet indicated, or where it was too late to amputate, numerous, eventually several hundred, punctures and small incisions through the skin were made without delay, by means of a narrow bladed scalpel, through the whole extent of the phlegmonous infiltrations. In places where these small incisions showed pus or sanious fluid in the subcutaneous tissue, deeper and longer incisions were made, in order to allow a thorough washing out and drainage of the infiltrated tissues. Through these openings, which generally bled abundantly, a considerable amount of yellow serous, sero-purulent, clear purulent or sanious fluid will escape later. When, even by pressure, no more fluid could be brought out, the whole diseased part was energetically washed off, and rubbed with a strong solution of carbolic acid, and the cavities and sinuses which contained pus or sanious fluid were thoroughly washed out by means of the irrigator. The further treatment consisted in the application of Lister dressings, without protective, which were changed twice a day, or in permanent irrigation with antiseptic fluids. The inflamed part of the body should be elevated or suspended vertically for the permanent irrigation. Salicylic acid is most often used on account of the toxic symptoms which are liable to be produced by the continued use of carbolic acid. The use of salicylic acid however, has some inconveniences. It does not disinfect with sufficient vigor, and furthermore, it produces coagulation of the exuded fluids, thereby causing a stopping up of the drainage tubes, aud preventing the antiseptic fluid from penetrating the tissues. Possibly other antiseptics as the hyposulphite of sodium, or the compound acetates of aluminum, sodium and magnesium (the acetic clay used by Billroth) might be used with advantage for the irrigation. By means of the manipulations described above, conditions are certainly created which must be very advantageous to the diseased tissues. A very large amount of the inflammatory products is eliminated, and consequently prevented from producing its phlogogenous effects upon the tissues, and its pyrogenous effect upon the organism. At the same time, the tension and rapidity of absorption is diminished, as well as the pain and the danger of gangrene.

But the numerous incisions and punctures are not only means of escape for the deleterious inflammatory products, but they also allow the entrance of disinfecting fluids into the tissues, which may possibly destroy the septic substances. The bleeding also acts advantageously, as it prevents congestion in the distended vessels. The results of this treatment entirely fulfilled the expectations. The generally very high temperature fell instantly, often to the normal, and even when on the following days a rise in temperature set in, it was always moderate, and lasted only a few days, and was followed by definitive defervescence. In almost every case the inflammation lost its progressive charaeter, and the redness and swelling went down and entirely disappeared in a short time. Among the cases treated in this way, there were very few in which no marked improvement was made. One man with septic inflammation of the entire upper extremity died, notwithstanding the treatment, a few hours after his entrance into the hospital. In a few cases secondary amputation was necessary, but not until the progress of the inflammation had been arrested. On the other hand, we find among these cases, a number of patients suffering from most severe, acute, progressive, septic inflammation, who recovered without the necessity of amputation.

Some Cases to Illustrate the above named treatment may be mentioned here: I. F., a laborer, forty-eight years old, had a phlegmonous inflammation, commencing in a contused wound of the left foot, and extending almost to the lower third of the femur. In several places, of the size of the palm of the hand, the skin was discolored, grayish-

black. The temperature was 40.5° C., the tongue, brown, dry and leathery. The patient was delirious. Multiple scarifications and extensive deep incisions were made through the gangrenous parts. The next day the temperature had fallen to 37.5° C. Later it increased, but finally diminished gradually. In ten days the gangrenous parts were eliminated, and the wounds in healthy granulation, but they were so extensive that healing seemed impossible. Amputation was proposed, but the patient refused to give his consent, and was sent away.

A. D., a laborer, twenty-nine years old, had a progressive, septic, phlegmonous inflammation, extending over the whole of the fore-arm and the lower part of the humerus, as the result of a contused wound of the hand. This caused contraction of the flexor muscles of the fingers and high fever. Multiple incisions and scarifications were made, and drainage and constant irrigation commenced. This treatment was followed by a sudden fall in the temperature, which remained normal in the morning, but rose to a moderate height in the evening. The phlegmonous inflammation was arrested, but later it was discovered that suppurative inflammation of the wrist had taken place. The joint was then opened and drained. Two weeks later, the patient was sent to the out department. At this time the wounds were granulating healthily, and the patient was able to move his fingers slightly.

A. B., a plasterer, forty-six years of age, as the result of a contused wound of the foot, had severe, gangrenous, phlegmonous inflammation of the left leg below the knee. When he was brought into the hospital there was a gangrenous patch as large as the palm of the hand, over the external malleolus; the whole of the crus was swollen, and brown in color up to the knee joint; dark brown stripes over the superficial veins; and high fever. Multiple incisions and scarifications were made, and irrigation instituted. The progress of the inflammation was arrested. The temperature diminished gradually. In two days it fell below 38° C. A week later, the patient was sent to the out department with healthily granulating wounds.

W. T., a working man, forty-six years old, was brought into the hospital, Oct. 17, 1876, delirious, and with a temperature of 40.2° C. From a contused wound of the right foot, gangrene had set in, which involved the first and second toe, the skin of the dorsum of the foot, and over the external malleolus. The whole lower extremity was red and swollen, the infiltration reaching up into the inguinal region. The inguinal lymphatic glands were considerably swollen, and over them were partly red, partly discolored stripes. The treatment consisted partly in excision and partly in division of the gangrenous parts. In the infiltrated parts, large incisions and multiple scarifications were made. The following morning the temperature had fallen to 38.2° C., and the morning after was normal. For some days the temperature rose in the evening to a moderate degree. The phlegmonous inflammation was entirely arrested, the gangrenous parts were eliminated, and the wounds granulated in a healthy manner. November 7, after the patient had gone through a severe attack of delirium tremens, Pirogoff's osteo-plastic amputation of the foot was performed, on account of the extensive defects of skin on the dorsum of the foot. The patient made a good recovery.

L. S., a beer-wagon driver, forty-six years of age, was brought to the hospital suffering from a severe suppuration along the tendons, and phlegmonous inflammation of the whole left fore-arm, which arose from a wound in the palmar surface of the left hand. Multiple incisions and scarifications were made. Irrigation could not be carried through, on account of a severe attack of delirium tremens, which set in on the second day. The phlegmona stopped under a gradual decrease in temperature. Suppuration set in in the joints of the carpus. Amputation at the lower third of the humerus was performed, succeeded by normal temperature and speedy recovery.

ELECTRIC LIGHT.—Dr. Liubinsky (Vratch, No. 26, 1880,) concludes, as the result of retensive experiments with Jablachkoff's candle, that the electric light, by its brilliancy, produces the same effect as insufficient light, temporary myopia.

THE INCREASE OF SHORT-SIGHTEDNESS.—At the recent Congress of German naturalists at Danzig, Professor H. Cohn delivered an address on the relation of school hygiene to myopia. As the subject is one of capital importance, and since the lecture contains the best current views on the topic, we will reproduce the main points, (as found in the St. Petersburger med. Wochenschrift, No. 38). Short-sightedness, the author claims, is rarely congenital. He, at least, has never met with it in children below five years of age. On the basis of his own examination of over ten thousand school children, as well as the researches of all other investigators, he claims the following deductions: In rural schools but few myopes are found; their number increases with the grade of the school and the class. The figures found in the Geneva high schools (Gymnasien) are simply alarming. In a record of forty thousand scholars myopia figured 7 per cent. in the village schools, 5 to 11 per cent. in the elementary schools, 10 to 24 per cent. in girls' seminaries, 20 to 40 per cent. in the "Realschulen," (corresponding to the scientific course of a high-school) and 30 to 55 per cent. in the "Gymnasien," (the classical high-school). Among medical students, Cohn found an increase of myopia from 52 per cent. to 64 per cent. between the first and the latter terms. In the first class of the Heidelberg gymnasium *all* scholars were myopes. The average degree of the myopia increases with the grade of the scholars. In grammar schools the average correcting glass is 20 (1, 7 d: optrics), and among students it was found to be 13. (2, 7 D). The Germans seem to be especially prone to short-sightedness, as has been learned in schools in mixed districts. Among the causes of myopia Cohn does not reject an hereditary tendency as not proven. The only tangible cause is persistent close work. This strain, caused by reading and writing at short distances, is due to improper desks, poor letters and poor print, and faulty illumination. The benches should be suited to the size of the children, and should have a back. The distance between bench and desk should be negative, the desk being somewhat higher than the level of the elbow. Still there is a tendency to lean forward no matter how suitable the desk, as long as we use the customary oblique script. An entire class sat straight while writing vertical letters, but leaned forward as soon as they were told to use the ordinary slanting script. Since much writing tends to aggravate the myopia, the author desires the use of short-hand in the higher classes. He is opposed also to slates, the writing on which is less distinct than on paper. He condemns most energetically the present print, insisting on letters at least 1.5 mm. in height and strokes of 0.5 millimeter in thickness. The lines should not exceed 100 mm. in length, since wider columns necessitate more motion of the eyes. Of course all these desiderata would be useless if a sufficient illumination is not insisted upon. To insure proper school hygiene, Cohn advises the appointment of goverment physicians, whose duty it would be to supervise schools and to insist on reform. The matter cannot be considered too lightly, since if myopia continues to spread as it has done, it must be regarded as a national calamity in Germany. Admitting the sad facts as regards the increase of myopia, we cannot agree with Cohn in his deductions. First of all the hereditary tendency is not to be denied. Indeed, we have no idea what it consists in, but any oculist of experience must admit that heredity plays a decided role in short-sightedness. The very prevalence of myopia among Germans, in districts with mixed population, is a proof of it. The fact that only a certain number of scholars under similar hygienic conditions acquire myopia, shows that a special predisposition, whatever that be, is necessary. Granting that over-use of the eyes may increase the evil, we must do everything to prevent it. Moreover, the frequency of asthenopic complaints among school children, not at all myopic, should lead us to consider very strongly the reforms demanded by Cohn. But while on our guard, as far as hygiene is concerned, we must remember that it is not at all proven that eye-strain can produce or even increase short-sightedness. The fact that it increases with the grade of the school is not conclusive, since if it is at all progressive, its course will be most decided during the years of most active growth. No satisfactory

statistics exist which could show that a greater percentage of myopes is found among the higher educated classes living under the same conditions as an illiterate population. Hypermetropes, moreover, must submit to a much greater strain than myopes to do the same work without glasses; still this strain does never lengthen the ocular axis in them, as it is said to do in myopes. No one has yet proven in any individual case, or in any class in school, that progressive short-sightedness will remain stationary during a vacation, and increase again on resumption of work.

Transatlantic Scarlatina by Hams —In addition to the trichina and chromate of lead scares that have afflicted our transatlantic friends, we have still another in regard to American cured hams, that seems rather far-fetched. Some English medical men have thought that they found connection between the eating of these articles and the occurrence of scarlatina in certain places. In one, for example, two adult parents and six children of different ages were all attacked with the symptoms of scarlatina after eating American hams. The disease was preceded by purging and abdominal disturbances, which seem to us natural enough, but probably had a significance to the reporter of the case when he thought of the eating of the pernicious hams. Scarlet fever was in the district and the domestic sanitary arrangements were bad. The ham was bought in the ordinary way, and no complaints were made by others who had purchased it, but so confident were the unfortunate Britishers that the ham was at fault that all that was left uneaten was destroyed, and any contradiction of their theory by examination or analysis therefore made impossible. The editor of the British Medical Journal himself seems to favor their opinion that there is a connection between the diet and the disease. There seems to be a European notion that America is generally infected, and that they must guard against disease from this quarter in all imported articles of diet, from cattle on the hoof down to hams. But such peculiar a posteriori reasoning as connecting scarlatina with hams is hardly worthy of the British Medical Journal.

Location of Towns.—At the last meet- of the North Iowa State Medical Society, held at Northwood, Nov. 10, 1880, Dr. N. L. Kean read an interesting paper on the causes of disease. In the discussion of this paper Dr. A. C. Wedge, of Albert Lea, Minn., made some interesting remarks on the location of camps. He said that in the late war it was demonstrated that the sanitary condition of a camp was much endangered by its location on the north side of a marsh or lake, especially in the warm and hot months, when it was noticed that malarial fevers, and other zymotic diseases, prevailed in the camp located on the northern sides, while those on the opposite sides escaped. The explanation was that marshes and lakes and low lands are very productive of disease germs, and that the prevailing winds of the hot and warm months, when zymotic diseases are most common, are from the south. The germs, therefore, would be blown away from the south camps and directly into the north ones. This important fact should be considered in the location of towns, not only in the south, but elsewhere. It is evident that the proper side for location must be that side which is opposite from the source of the prevailing winds in the warm months. Dr. Wedge remarked that in his location the inbabitants of that side of Lake Albert Lea which received the winds from the lake, suffered from the zymotic diseases, while those on the opposite side were comparatively free.

Aneurism of the Arch of the Aorta. Dr. R.S. Sutton, of Pittsburgh, Pa., reported to the Allegheny County Medical Society (American Journal of the Medical Sciences, October, 1880) a case of aneurism of the descending portion of the arch of the aorta, which was cured by the treatment of absolute rest, restricted diet, and the administration of ergot and iodide of potassium. This treatment was adhered to for fifteen months. At this time the patient was reduced almost to a skeleton, the aneurism was cured, and the heart's action weak and irregular, giving a distinct anæmic bruit. A committee of the society examined the patient and reported the aneurism cured.

Strychnia.—M. Richet has recently reported some observations on the action of strychnia in large doses, that are rather noteworthy as being somewhat opposed to our previous notions of the drug. He found that by using artificial respiration it was possible to maintain life in a dog, while it absorbed more than one hundred times the usual fatal dose of the poison. Thus by giving at once a large dose hypodermically, keeping up artificial respiration meanwhile, and gradually increasing the quantity by injections of still stronger doses, a dog weighing little over twenty pounds could be made to absorb more than a dram of strychnia without succumbing, as long as the high dose was maintained, or the artificial respiration kept up. It becomes in fact a new poison, altogether different in its action from that we usually attribute to strichnia. As the dose is gradually administered the effects vary. There is first a tetanic period, which is the same as that following usual toxic doses; then a convulsive period, and as the quantity is increased till it exceeds one centigram per kilo of the animal's weight, there appears what M. Richet calls a "chronic" stage, characterized by rhythmic jerks every three or four seconds, with intervals of complete relaxation. When the quantity injected is increased till it exceeds four centigrams per kilo, there appears what he calls the stage of resolution, in which the choreic movement can no longer be produced; reflex and spontaneous respiratory movements cease, the pulse becomes regular, the pupils closely contracted, and the blood pressure and temperature which earlier are enormously increased, full again to even below the normal. When the quantity absorbed exceeded five centigrams per kilo of the animal's weight, it was found that the controlling power of the vagus over the heart was almost nothing; the muscles were directly normally excitable, and though the influence of the motor nerves over the muscles was dimin ished, it was not absolutely abolished. M. Richet therefore concludes that the complete resolution is due rather to suppression of the functions of the cord, than to any effect on the peripheral motor organs, either nerves or muscles. Strychnia thus in large doses acts like curare and a little like chloral. Death usually occurred in these experiments from accidental cessation of the artificial respiration, a stoppage of half a minute sufficing to produce it. Any slight hæmorrhage was also fatal. As the strychnia gradually became reduced in the body by elimination, the phenomena of ordinary small toxic doses, cardiac arrest and syncope, again appeared. The smaller the dose thus became, the greater the danger of these accidents. Hence we cannot rely upon artificial respiration as an antidote to strychnia poisoning. Nevertheless the author thinks that recourse should be had to it in serious cases, even to the extent of performing tracheotomy in order to render it more effective.

Melano-Sarcoma of the Brain.—M. Ozenne, of the hospital La Pitié, reports a case of melano-sarcoma, in which aphasia was manifested, and accordingly, a cerebral metastasis being diagnosticated, surgical interference was declined. On the autopsy, besides some melanotic nodules in the heart-walls, there were found within the externally healthy brain, a number of blackish nodules, usually at the depth of the sulci, and pretty equally in both hemispheres. The medulla oblongata had become diffusely melanotic, being quite black on section. Cerebral melanosis, common in the horse and dog, has been rarely observed in man.

A Correction.—We have received from Dr. B. Joy Jeffries, Boston, Mass., the following correction of an error in his letter on color-blindness, which appeared in a late number of the Review: "Will you kindly allow me to correct a mistake in a recent letter to your journal, in which I said I had 'been informed that one, at least, of the surgeons of the Marine Hospital Service was color-blind.' The gentleman of whom I heard this writes me that his statement was in reference to another medical man, and that the one I had in mind was not now in the U. S. service."

Parsimony.—The State Board of Health Act, now pending in the Vermont legislature, allows only five hundred dollars for the annual maintenance of the Board.

FAILURE TO GRADUATE ON FIRST VOTE. It is not by any means uncommon in some medical colleges that a candidate for graduation fails to pass the final examination, and is consequently plucked, and then, on reconsideration by the faculty, graduates without more study. A student may therefore become a doctor in virtue of a reconsideration of the faculty, when in virtue of his knowledge, as determined by examination, he had proved unfit. It would be proper for the association of colleges to rule that additional study and another examination shall be required before such a student may receive his diploma. A reconsideration by the faculty does not educate a deficient student, although it possibly might be a desirable substitute for a half dozen courses in some schools.

IMPACTED FECES.—Dr. Robert Battey has a practical way of relieving women of hard masses of impacted feces when for any reason an enema or cathartic fail to do the work, or cannot be administered. Instead of distending the sphincter ani muscle and digging out the mass with a spoon, or with some like instrument, he breaks it up and presses it out, by means of the fingers in the vagina. This may generally be accomplished without difficulty, or with as little difficulty as by other means. The method is moreover less disagreeable, both to the doctor and to his patient. It would manifestly be more easily accomplished in the cases of women who have been or are parturient.

ANAL FISSURE.—In the treatment of this condition, Dr. Hamon (Le Practicien) applies to the fissure, by means of a camel-hair brush, a solution of one part of chloroform to two of alcohol. The first application is painful, the succeeding ones less so. Two or three applications, at intervals of two or three days, usually effect a cure.

HOSPITAL ADVANTAGES.—In the ideal time, sometime to come, diploma mills which do not furnish sufficient hospital and clinical advantages, and require that they be so utilized as to fit the new doctor for the efficient performance of his duties, will have outlived their usefulness, if they ever had any.

LOCAL.

SMALL-POX HOSPITAL.

Dr. Dunne, city physician, reports seven cases of small-pox at the hospital at present, all of which are doing well, with one exception, that of the sister of the order of Sisters of the Handmaid of Christ, who was sent to Sheffield, Ill., to nurse a case of small-pox, and who is now suffering from a severe attack of confluent small-pox.

HEALTH DEPARTMENT.

Dr. Paton is still engaged in the analysis of sugars, syrups and candies. His report will be published at an early date.

Among the causes of death given in certificates, recently received by the Registrar, are: Hard death, internal hæmorrhage, cramps, and, as a climax, "Inanition; was dead at birth and resuscitated, living five hours." Verily, if this be true, the millennium is now come!

COOK COUNTY HOSPITAL.

is at present filled to overflowing. It has comfortable accommodations for two hundred and sixty patients, but three hundred and fourteen are now reported on its books, one hundred and forty being on the surgical, and one hundred and seventy-four on the medical side.

On account of the illness of Dr. A. J. Baxter, his position has been temporarily filled by Dr. Fenger.

Dr. Gudden, house surgeon, performed the important operation of external urethrotomy with gratifying success, November 12.

THE WEST CHICAGO MEDICAL SOCIETY

announces a programme of more than usual interest for its November 23 meeting. This includes a paper by Dr. A. W. Hagenbach, on "Surgery Among the Insane." The following are some of the principal points to be treated of by the essayist: I. Suicidal tendencies; II. Homicidal tendencies; III. Self-inflicted injuries; IV. Fractures and their treatment; V. Sub-occipital abscess cured by rest. VI. Scrotal sloughing and rapid repair of tissue. Dr. S. J. Holmes will report a case of abscess of the liver opening through the abdominal walls, with recovery, and Dr. F. Bradley will present specimens and re-

port three cases of aneurism of the aorta.

At the November 9 meeting of the society papers were read by Dr. F. E. Waxham, on urari, (a report of which appeared in the Review of October 20,) and by Dr. W. P. Verity, on typhoid fever and its complications.

THE CHICAGO MEDICAL SOCIETY.

At the November 15 meeting of the society, Dr. E. Ingals read a paper on the progress of medical education in Chicago, with some suggestions for its advancement, in which were presented a number of old and some, at present, impracticable recommendations on the subject of medical education. The author advised the examination of students before admission to medical colleges, a three years' course, and an increased length of each course, and finally recommended the passage of a law to compel students on the one hand, and medical colleges or their teachers on the other, to accept these advanced notions. The whole matter was concluded by offering a resolution, extremely general in character, to the effect that the society should appoint a committee of three members to consider the whole subject of legislation in its bearings on the medical profession. After the reading of the paper several members made remarks. Dr. S. J. Jones said that the scheme proposed in the paper was desirable, but not novel, and, in the present state of affairs, hardly practicable. Dr. C. T. Parkes joined issue with the author of the paper upon the point that graduates in medicine of thirty years ago were, upon the whole, as well up in their literary attainments as the graduates of the present day; Dr. Parkes thought differently from the essayist, and was in favor of the graduates of the present day. After considerable desultory discussion by other members, the discussion was closed by the author of the paper, who added nothing new. The committee appointed to draft resolutions on the late Dr. F. H. Davis, presented a memorial and resolutions, which were adopted and ordered filed. A communication was read from the Chicago Training School for Nurses, after which Drs. Jones, Park and Ingals made remarks on its aims and plans, and the society passed a resolution endorsing the institution. The society then adjourned until November 29, when Dr. C. Fenger will present an exhaustive article on the endoscope and its use in gonorrhœa and gonorrhœal rheumatism.

PHILOSOPHICAL SOCIETY.

Dr. Geo. M. Beard, of New York, lectured before this society, November 6, on the subject of American nervousness. The lecturer detailed his views on the special characteristics and causes of American nervousness, stating that the beauty of American women, modern civilization, Protestantism and politics were the most important topics for study in this regard. The influence of the dryness of the climate in this country, was also mentioned as a cause of American nervousness. The author stated that their nervousness would never prove the destruction of the American people, on account of the Teutonization of America and the admixture of the phlegmatic German with the neurotic American temperament, which would prove an advantageous factor in the building up of the American people. In the discussion of the lecture, Professor Brumell thought that already the plea of emotional insanity was too commonly urged in behalf of criminals, and feared that the views advanced by the lecturer would not tend to ameliorate this condition of affairs, and gave as the seriatim effect of the lecture upon him, that, at its beginning, he thought he was a sick man; at about the middle he knew he was a well man; and, at the conclusion, he believed that had he not been sick all his life, he would have been dead long ago. Mrs. Dr. Smith considered that the lecturer had been too vague in many most important points, and that the definition of nervousness was wanting. Dr. Jewell claimed that the lecturer's assertions had been too sweeping, and could not be substantiated, that he had not defined clearly what nervousness was, and had signally failed to differentiate American nervousness, and closed by challenging Dr. Beard to define nervousness. Dr. Beard, in reply to his critics, stated that he would define nervousness by showing what it was not, that is, by exclusion. This method of definition he carried out to such an extent as to exclude even nervousness itself.

CONTRIBUTIONS.

THE USES OF IODOFORM.

BY H. C. HOWARD, M.D., CHAMPAIGN, ILL.

The value of iodoform as a topical application has been before the profession for a considerable time, but I am convinced that it is not even yet appreciated by the majority, who have a rather indefinite idea that it is useful, and a very imperfect notion of the extent and scope of its usefulness. My own experience with this agent has been so satisfactory that I have come gradually to look upon it as the very best at our command for the healing of ulcerated, eroded, granulated and abraded surfaces, which have for any reason too little inclination to take on healthy action, and which, therefore, require some alterative or stimulative impetus. I shall, therefore, designate, in a few words, some of the conditions in which I have found it useful.

CHANCRE AND CHANCROID.

Take iodoform 100 parts, sugar of milk 200 parts, thymol 1 part. Let the above be thoroughly mixed and reduced to an impalpable powder. The glands and prepuce must be thoroughly clean and dry. Then pack the ulcerated surfaces full with this powder, dust it over the surrounding parts, and secure it with a light bandage. Repeat the application as often as the parts become moist from new discharges. Ordinarily, about three applications will be required every day, for the first two or three days, then as healing continues, they may be repeated less frequently. A fair trial of this method, I am certain, will convince any one of its superiority.

HERPES CIRCINATA, HERPES ZOSTER, AND HERPES OF THE PREPUCE.

Dissolve one dram of iodoform in one-half ounce of the oil of eucalyptus, and paint the diseased surface with this solution. Two or three applications will usually affect a cure.

GRANULATED LIDS.

Apply iodoform and sugar of milk, one part to five parts, directly to the everted lids with a soft brush. This occasions no smarting or pain, and often cures cases of months' standing in two or three weeks. The thymol should not be used in these cases, as it irritates and produces pain.

GRANULAR PHARYNGITIS.

The same powder as indicated for chancre and chancroid may here be employed with an insufflator, thoroughly, at bed-time. The most obstinate cases will often yield promptly to this course.

CHRONIC ULCERS OF THE LEG, CRACKED NIPPLES, AND ALL KINDS OF INDOLENT ULCERS WITH RAISED EDGES.

Prepare an ointment containing one-half dram of iodoform in an ounce of cosmoline, and apply frequently, after having previously thoroughly cleansed the parts. The well-known and popular addition of the balsam Peru to this ointment masks the odor and adds to its value. I would add that the above is an auxiliary, not a substitute, for the ordinary methods of applying pressure, such as strapping and bandaging, which should not be omitted.

UTERINE CATARRH.

For uterine catarrh, or, as it is improperly called, endometritis,—I refer to those cases in which there is congestion, and a consequent discharge, with some enlargement, and an erosion extending up into the canal—I employ a suppository, which is made and applied in the following manner: Mix one-half dram of finely powdered iodoform with one ounce of the butter of cocoa. This may be kept in a shallow ointment jar. I have a thin silver tube about one-fifth inch in diameter, with a closely fitting piston. This tube is about eight inches long. When a suppository is needed, I retract the plunger or piston to a point from the distal extremity of the tube, corresponding to the length of the required suppository. Then fill the lower open end of the tube by plunging it again and again forcibly into the jar containing the material for the suppository, and packing it solid by downward pressure of the piston. Then I apply the suppository by passing the end of the tube into the cervical canal and force it out by pushing in the piston. The suppository will then be in the desired place. Five grams of the iodoform may be used at a time. Unlike the gelatine pencils of iodoform, which are so widely advertised, this melts and takes effect at once, and causes no pain.

FISSURE OF THE FEMALE URETHRA.

This troublesome and intractable ailment yields promptly to the use of the same suppository which I have advised for uterine catarrh. Their use is commonly followed by the disappearance of those symptoms which are always associated with fissure of the urethra, and which so often lead to the false diagnosis of cystitis.

GONORRHŒA IN THE MALE.

The same suppository, made in the same manner, and applied with the same instrument, may here be advantageously employed, care being taken to pass the suppository above the inflamed part. This treatment of

gonorrhœa I have used for nearly two years, and can testify to its great efficacy. It is a suitable substitute for injections, and is more sure in its effects. The application should always be made by the doctor, when possible. I have been pleased to see that Mr. W. Watson Cheyne, in a late number of the British Medical Journal, contributes a very definite testimonial to the value of urethral suppositories, or pencils, in the antiseptic treatment of gonorrhœa. I would, however, give the preference to the method of preparation and application which I have here described, as being simpler and, perhaps, more effectual than his. It must be remembered that the popular addition of balsam Peru in these suppositories is objectionable, by reason of its irritating qualities.

ON THE INFLAMMATORY DISEASES OF THE LUNG.

General Considerations.

BY J. L. TEED, M.D., KANSAS CITY, MO.

To form a rational conception of the therapeutics of these diseases, we need to have our ideas clearly established, first, on the nature and course of the inflammatory process, with the variations depending on variance of tissue; secondly, on the histological structure of the lungs, with the location of the different tissues that may be so affected. Fortunately, as far as their function is concerned, it is, in the main, the most easily comprehended of all the functions of the body; the blood being brought into near relation with the inspired air, separated from it by only the thin walls of the capillaries, gives off carbonic acid, and absorbs oxygen, without the aid of any accessory apparatus.

The first material change *observable* in that process, the totality of which is termed inflammation, is an alteration in the vascular element of the part. The arterioles are constricted, and the circulation somewhat retarded. After a brief interval, the arterioles become dilated, and the circulation through them is accelerated. More blood, and consequently more oxygen is brought into the part. This increased supply of oxygen produces increased oxidation of the cell contents and of the oxidizable matters contained in the blood, causing increased formation of fibrin, water and carbonic acid. The veins not being equally dilated as the arterioles, more blood is brought into the part than is removed, and it consequently accumulates there. This increased amount of blood, and the increased amount of water and fibrin formed, cause local swelling, with œdema and softening of the tissue; or if the surrounding envelope be unyielding, increased tension of the part. If the affected structure is superficial, as a mucous membrane, a more copious discharge of fluid than usual takes place from its surface, holding some mucin and salts in solution; if it be a serous membrane, an increase of the watery halitus is the result.

This increased oxidation is accompanied by an increased liberation of force or energy, a part of which becomes the increased heat of the part, while the balance, as waves of nerve force, is transmitted to the nervous centres, causing the local pain, and the sympathetic fever. Under the increased tension, the absorbents become hindered in their action, as well as the arterioles, capillaries and veins, and the circulation becomes gradually reduced at the center of the inflammatory process to a to and fro oscillation of the contents of the vessels, while the inflammatory area enlarges, and the circulation in and around its borders is accelerated.

As the absorbents throughout the inflamed part have been removing as much of the intercellular fluid as possible, loaded with the results of oxidation, the amount of fibrin in the blood is very soon increased to more or less above its normal amount. The increase of waste material in the blood augments the work of the depurating organs, while the efficiency of their performance of function is impaired by the symptomatic fever, and the defective nutrition resulting from the toxæmia. If this reaches a certain degree, the typhoid condition is speedily induced.

The nutrition of the inflamed part becomes early impaired; its cells exhibit cloudy swelling, become granular, and their nuclei oftentimes rapidly proliferate. The white corpuscles increase in the part; they migrate through the walls of the capillaries, and some form spindle-shaped cells, which with the unabsorbed fibrin, produce the hardness around and through the inflamed part, and under these changed conditions of its existence, the functions of the part become greatly modified and may be suspended.

After a time fatty degeneration is set up; the accumulated white corpuscles with the detritus of the tissues may soften and be gradually liquefied and be removed by the veins and absorbents; the process thus ending in resolution, with generally some contraction or shrinkage; or they may form an abscess, the wall of which is constituted by the internal surface of the inflammatory hardness, which lies like a wall of circumvallation between the inflamed part and its healthy surroundings; or the pressure may strangulate the vessels, and gangrene may be the result. If the inflammation be superficial a slough

may be thrown off, and an ulcer will be the consequence.

On the free surface of a mucous membrane the watery exudation carries with it mucin, white corpuscles, proliferated cells often granular, and the cells of the mucosa itself; on that of a serous membrane it exudes into the sac, forming dropsy; in both, shreds of coagulated fibrin may be found. Or, the fibrin may with white corpuscles and a free cell proliferation form a false membrane on the surface of the mucosa, and be detached and thrown off without injury to the underlying surface, as it shrinks and loses thus its water, forming the croupous form of inflammation; on a serous membrane the effused fibrin may become attached to the opposite side of the sac and form intervening bands, or merely a form of false covering on one side only, both of which formations may become more or less organized and a part of the serous structure.

For our present purpose the tissues of the lungs are readily reviewed. The bronchial tubes having reached their last division, open by constricted apertures into small chambers, the air vesicles: these bronchi are lined to their most minute division with a proper mucous membrane, covered by ciliated cylinder epithelium which stops abruptly at the entrance into the air vesicles. These are formed by a very fine fibrous wall on which are spread out the capillary network of the pulmonary artery, and they are lined between the loops of the vessels with a flat pavement epithelium, in which are open spaces, the commencements of the pulmonary lymphatics. The bronchi and the vesicles are supported by a fine connective tissue, in which the bronchial arteries and nutrient vessels of the lung ramify, these vessels returning a part of their blood by the bronchial veins, the rest by the capillaries of the pulmonary artery. We thus have the mucous membrane lining the bronchi, the pavement epithelium lining the air vesicles, the fibrous walls of the vesicles, the connective tissue matrix, and the pulmonary capillaries and the lymphatic tissues and vessels.

The forms of pulmonic inflammation divided according to structure, will be bronchitis and bronchiolitis, catarrhal and fibrinous; pneumonia or inflammation of the pulmonary parenchyma, whether as desquamative inflammation of the vesicular structure, interstitial inflammation of the connective tissue matrix, which may be cirrhotic or suppurative, or the so-called croupous pneumonia; caseous pneumonia which appears as a secondary affection affecting the lymphatic tissues, and pleurisy or inflammation of the serous envelope.

Besides these, however, are many special forms of pneumonia, as the diphtheritic, the syphilitic, the pyæmic, the septiæmic, the pythogenic, the embolic, the latent, the hypostatic, and some others. But as all these forms have stronger relational affinities to their exciting causes, than to the structure affected, or to the morbid process (the inflammation) they are excluded from present consideration.

Post mortem appearances resembling pneumonia are often found in cardiac diseases, as the result of obstruction to the circulation; in toxæmic cases as in uræmia or in typhus poisoning, and in cases which have died from exhausting and lingering diseases, as prolonged suppuration or emaciation. None of these are included either.

Although the various forms of tissue are in exceedingly close relation with one another, the inflammatory process may be seated in and limited to one tissue only; thus we may find bronchitis or bronchiolitis, limited to the bronchi; pneumonia limited to the pulmonary parenchyma; or pleurisy limited to the envelope. Although these pure forms of disease are by no means so common as the mixed forms, yet being occasionally met with, they must be remembered, because they impress such cases with marked peculiarities from the absence of usual symptoms, especially in the case of the parenchymatous pneumonias.

The inflammation generally, however, spreads by contiguity as well as by continuity; having commenced in a small portion of a lung tissue, it may pass over to other tissues in its vicinity, as well as creep along in the tissue first affected. Thus we meet with broncho-pneumonia, or pleuro-pneumonia, etc., etc., in all which cases the conditions proper to the inflammations of the respective tissues become blended together in one common whole, and such cases form the general descriptions of the pulmonary inflammations in the ordinary text-book.

It is at once evident that the local characters of the pulmonary inflammation will vary according to the anatomical structure of the tissue affected, and the kind of the inflammation. If a mucous membrane is affected, and the form of inflammation be catarrhal, the secretion derived from the affected part will vary from that derived from an affection of the parenchyma, whether it be of the vesicular epithelium, or as croupous pneumonia, while if the inflammation be peribronchial or pleuritic the secretion may be absent, as it may also be in cases confined to the air vesicles, when their orifices are obstructed.

The examination of pulmonary sputa is altogether too much neglected, and yet the information derived from this source is our only means of information as to the nature and ex-

tent of the affected structures. The presence of catarrhal products is the only evidence of bronchial inflammation co-existing with that of the parenchyma; while the presence of the croupous plugs or of the alveolar epithelium points unmistakably to the affection of the vesicular parenchyma; and in many cases disintegrated lung tissue is the only sure evidence of phthisis.

The symptoms will vary also according to the change in the nutrition and the functional performance of the organs, for the essence of imflammation consists in disorder in nutrition and consequent performance of function. These disturbances will vary according to the tissue affected.

The constitutional symptoms of the inflammation will vary according to the relations of the affected tissue with the nervous and vascular systems, and the extent to which other systems and organs are affected. Here arise the individual peculiarities of the patient. In some the relationship of one organ to the lungs is greater; in another, that of another organ. The minute working of each nervous system between the various organs of each body differs; in one the reflex objective point will be the stomach; in another, the liver; in another, the intestines; in another, the kidneys; in another, the skin. And this individuality will be shown in the differences between individual cases, and such are among the deepest problems in general pathology.

"To form a rational conception of the therapeutics of these diseases" was our first sentence. It will be also our final heading, for the end of all study should be practice.

The food needs the closest attention, so as not to give the sick man what he cannot properly assimilate; and in this each one is a law unto himself, and likes, dislikes, and peculiarities have to be carefully studied and followed, or not, as the case may be.

Medicinal agents have three lines of action; I, on the local tissues; II, on the blood; III, on the nervous system. Those that act on the local tissues are but few, as iodine, bromine, chlorine, mercury, ammonia, potassa, soda, lime and cod liver oil. Many of these act on the blood also as a tissue. Of course their being absorbed into the blood does not necessitate such action as is contemplated in speaking of tissue cell action.

The great bulk of our remedies act, therefore, on the nervous or vascular systems, and indirectly on the tissue cells. Many act on both of these systems, and some on all three.

If we separate the steps of the inflammatory process and adapt our remedies to these different steps, we shall soon reach the limits of our capabilities; sometimes very quickly, indeed; while in some cases we may be able to accomplish a great deal in this direction.

The factors in the inflammatory process being threefold, derived from the cell element, the vascular element, and the nerve element of the part inflamed, the factors of antagonism, that is, the line of treatment, must react on all the three of the factors engaged in the process; such reaction may be accomplished indirectly as well as in a direct manner; but to select the means for this end with understanding, it is necessary to know the physiological relations existing between these three elements, and the mode in which such relations are disturbed, as well as the mode in which they are influenced by the means to be used.

Thus general pathology and general therapeutics go hand in hand, and without the latter the former is but an empty chimera, an *ignis fatuus*, leading us to exult much in so-called knowledge, only to be met by bitter disappointment at every turn. The veriest empiric, who knows nothing of pathology, will be a safer stay in time of need than the most profound pathologist who has not continued his studies into the realms of therapeutics. But with such studies he in his turn becomes infinitely safer. The questions of treatment will be more fully discussed, when treating of the individual inflammations that attack the lungs.

RETENTION OF PESSARY

By Senile Atrophy of the Sexual Organs.

BY DR. O. STROINSKI, CHICAGO.

Prolapse of the vagina and of the uterus is very common in Europe, where women of the humbler ranks are forced to do hard work, especially carrying heavy burdens on the back. It is customary in such cases to obtain a pessary, usually a wooden ring, from a midwife, to introduce it, and to pay no further attention to it. Hence the gynæcologist sometimes finds these pessaries under the most peculiar circumstances. I have seen them so encrusted with the vaginal secretions that they could only be removed piece-meal. Others I have found clasped tightly by the edges of a lacerated cervix. I have even seen them perforate the vaginal wall and produce fistula, but I have only seen one instance of a pessary retained by senile atrophy, although I have removed many after the menopause.

Mrs. A. W., a German, fifty-three years of age, had had a pessary introduced seven years ago, on account of prolapse of the posterior vaginal wall. At first she removed it daily, in order to clean it. After the cessation of the menses it could no longer be removed,

but she continued to make daily injections. Four weeks ago, she noticed a mucous and bloody discharge, increasing from day to day, and accompanied by vaginal pains. Several midwives attempted in vain to remove the instrument. I found the woman in good health, but the entrance to the vagina scarcely afforded entrance to the little finger. The perinæum was intact and so resistant that it could not be pressed down with the sound. All attempts at dilatation proved futile. With the aid of the little finger it was discovered that the hard rubber ring was tightly clamped in and scarcely movable, so that it could only be removed by cutting it into small pieces. It was first softened by injections of hot water and then drawn down by a small polypus forceps. With a pair of narrow-bladed scissors it was now cut and carefully rotated, so that it might be cut again on the other side. It proved necessary, however, to quarter it before it could be extracted. The vagina measured subsequently one inch and three-quarters in length, its walls were rigid and not elastic. The cervix uteri was scarcely noticeable as a prominence. Since the pelvis was narrowed antero-posteriorly, the pubic region was very deep. The perinæum was inelastic and the external genitals atrophied. On the posterior vaginal wall an uneven and easily bleeding tumor was found. The introduction of a very small tubular speculum showed it to be the place the pessary had pressed upon. All further difficulties were removed by the use of dilute tannin solution.

How to Warm the Feet.—Some writers declare that the application of ice to the back, up and down over the spinal cord, will cause cold feet to become warm. This should prove a valuable suggestion to all tramps and sleighing parties in the winter. When two or more are together, caught in a snow-storm, with cold feet, they should not permit them to remain cold when the means of relief are so very accessible. Let them mutually utilize the snow and ice by applying it to one and another's backs. This is another illustration of the singular beneficence of nature, who supplies the world with snow and ice to warm the feet of its inhabitants at the very time when they are the most liable to become cold.

Rupture of the Uterus.—Mr. Sincock reports in the Obstetrical Journal, a case in which a midwife in endeavoring to remove an adherent placenta, ruptured the uterus.

CORRESPONDENCE.

LONDON LETTER.

London, England, Oct. 30, 1880.

The arrangements for the forthcoming international congress—presidents of sections—the probable receptions—sir william gull—the british view of medical etiquette—pending decision of the college of physicians.

We shall, next year, expect to receive a large American contingent. The International Congress will be held here in the first week of August, 1881. Sir James Paget will preside as president of the whole Congress. Erichsen will be president of the section of surgery, with Spencer Wells and Sir Henry Thompson to assist him. West will take charge of the section of the Diseases of Women. Wilks, of Pathology. McClintock, of Dublin, will preside over the Obstetric section. Sir Wm. Gull will be president of the section of Medicine, and Bowman of the Ophthalmic section. The sections will, indeed, be as strongly manned as possible. Of course, in addition to these, there will be honorary presidents and vice-presidents from all the countries of Europe, and America.

Already we hear that Germany will send Virchow, Billroth, Esmarch, Langenbeck, Klebs, Senator. France will send Verneuil, Charcot, Brown-Séquard, Chauveau, and altogether it will be a very brilliant gathering. Fifteen thousand dollars have been subscribed by the profession here, within a few weeks, for the expenses of the meeting, and the entertainments will be of a very agreeable character. The Queen and Prince of Wales have signified their intention of acting as patrons, and, no doubt, some of the gatherings will be attended by the most distinguished persons in literature, science, and art. It is, I know, probable that the rooms of the Royal Academy of Art will be secured for the opening soiree. These are the finest rooms in London, and the walls will, at that time, be hung with the finest pictures of the year. The colleges of physicians and surgeons will probably give simultaneous entertainments at their great halls. The Lord Mayor will, it is expected, entertain the company at the Guildhall. All the great houses in London which contain fine galleries of pictures, such as the Duke of Wellington's, Apsley House, Lord Ellesemere's, Bridgwater House, and Mr. H. Alford's house, in Park Lane, which was described by Lord Beaconsfield as the only gentleman's house in Europe, will all be open. For those Americans who wish to see

London under favorable circumstances, as well as for those who wish to make the acquaintance of the most eminent medical men in Great Britain, and from all parts of the world, this will be a favorable opportunity. I am afraid there will be rather a babel of tongues, as three continental languages will be permitted in reading the papers, either French, German, or English, but at such meetings, it is rather the person and manner of the great speakers that is studied than anything else, and the actual discussion of what is put forward is generally considered of less importance than the observation of those who discuss it, and the manner in which they develop their views. An ample opportunity will be afforded for the study of comparative ethnology, and the student of professional manner will find much to interest him; while on the other hand, the varying modes of thought, the prevailing currents of the different continental schools, the specialties of international competition in medical progress, will all be concentrated within the bounds of a dozen lecture rooms, and I am inclined to think that the International Congress of 1881 will be an event of very unusual interest in medical history. The previous Congresses of the kind have been international rather in idea, in scope and plan, than in actual execution of detail; they have, for the most part, consisted of an overwhelming number of the inhabitants of the particular country in which they were held, with a small sprinkling of visitors, and have hardly been more international than the meetings of the British Medical Association, which always contain a considerable infusion of foreign visitors. At this Congress, however, there is reason to expect that all the nations of the world will make very large contributions, and the preliminary organization having been such as to insure great confidence in the interest and success of the gathering, it seems probable that foreign medical men will see here an occasion of really meeting together in great number, and making acquaintance with friends from foreign countries in such a way as has never before been offered.

There is only one section as to which some reasonable doubts may be felt of its success, and that is the section of Medicine. Although the name of the president selected is that of one who has attained great professional success, it is the name of a man who has, also, on more than one occasion, incurred great displeasure in his own profession, and who has recently profoundly hurt the consciences of his professional brethren here. Since the nomination of Sir Wm. Gull as president, he has fallen under the ban of the profession by an act, which, although it seems to him, no doubt, harmless in itself, seemed to others so characteristic of the worst spirit of professional egotism and injustice that it has brought upon him a most painful censure. Sir William Gull is the physician of the Prince of Wales and of fashionable society here. His career has been one which is, in many ways, creditable. The son of very poor parents, it is said a wheelwright in a Sussex village, he showed considerable talent at school, and found his way, in an inferior capacity, to Guy's Hospital, where he subsequently became a medical student. By assiduity in the wards, and by a natural talent, he succeeded, after passing brilliant examinations, in obtaining a resident appointment, and subsequently was nominated to junior offices on the staff. He worked hard for years at the hospital, and obtained the reputation of being a good clinical teacher and an earnest student. His contributions to medical literature are not important, and have chiefly been made in the reports of Guy's Hospital, the most important of them relating to tumors of the brain, as to which he is a recognized clinical authority of great eminence. He practiced for many years, was in the heart of the commercial part of the town, and he rapidly rose to large practice, due chiefly to his fascinating personal qualities. He quickly outstripped his competitors, and finding his practice became more and more fashionable, he moved into the West and fashionable quarter of. London, and rapidly rose to such a pitch of prosperity that it has long been said that no duchess can die without Gull's assistance.

On more than one occasion, however, he has played false with the profession. On the occasion of the Emperor Napoleon's death, he separated himself from his colleagues, and persisted in writing a letter to the "Times," intimating, not obscurely, that if he had been consulted, he might have discovered prior kidney disease, and prevented the operation being performed. On the occasion of the famous Bravo poisoning case here, he distinctly intimated that his colleague, Dr. George Johnson, had shown a want of judgment which he, Gull, should have corrected; and within a few weeks, in reference to a great nursing quarrel at Guy's Hospital, he has appeared once more before the public, informing the jury that the patient who died from the shock of a bath, administered, without medcal permission, by a nurse, and who was, after death, found to be suffering from tubercular meningitis, showed symptons, during life, which he, Gull, should very early have recognized, but which Pavy did not recognize, and that he considered that his colleague had

signally failed in that clinical skill of which he intimated he alone was the consummate master. Under these circumstances his unpopularity has reached such a point, that when he appeared at Cambridge to receive his honorary degree, he was thoroughly hooted and hissed by the whole body of professional men. Such an incident is quite unprecedented, and it lays open to serious reflection how far his presidency of the Medical Congress, to which I now refer, will prejudice the prospect of success of his section, as professional feeling here at present runs so high that it is considered improbable that any medical men will enter the section over which he presides. The nomination was a sycophantic error, due to the personal feelings of one or two members of the executive committee. It was, however, made before this last exposure and scandal, and it remains to be seen whether it will be persisted in.

The whole matter of Sir William Gull's conduct is now before the College of Physicians here, and will have to be decided by a body of censors, of whom Sir Wm. Jenner is the senior. They are all now away for their holidays, and the matter cannot be considered until a later period, when I shall probably have some other communication to make to you on the subject. It is one of much more than personal interest, as it affects the great rules of professional etiquette, which are important alike to the profession in all countries.

NEW YORK LETTER.

NEW YORK, Nov. 10, 1880.

CATARRH OF THE NASAL PASSAGES.

At the last meeting of the Academy of Medicine, a paper was read by Dr. F. H. Bosworth upon catarrh of the nasal passages, which contained a number of practical points, and elicited some discussion. After describing the anatomy of the pharynx and nasal passages, and showing the liability of the part above the line of the soft palate to accumulations of mucus and desquamated epithelium from the inefficient action of the currents of air and the ciliary movements in removing them, Dr. Bosworth proceeded to describe the pathology of catarrhal inflammation of these parts. He said: Catarrhal inflammation results in the thickening of the mucous membrane lining the nasal cavities, and this thickening is accompanied either by an atrophy of the glands from compression, and a consequent dryness of the parts, or by an hypertrophy of the glands and an excessive secretion. If the natural watery secretion is dried up, a thick mucus collects on the surface, dries and forms a pellicle, under which some secretion goes on imprisoned. This degenerates, becomes fetid, in turn dries, and thus thick offensive masses are built up, which it is difficult to detach. If the secretion is excessive, mucus accumulates in the nose and is carried back by the act of snuffing and lodged in the upper pharynx. It then interferes with nasal respiration and leaves the patient to breathe through the mouth. But as the air thus breathed is no longer warmed before reaching the larynx, laryngitis becomes a frequent sequel of nasal catarrh. The accumulation excites irritation and further inflammation, and gives rise to an offensive breath. This latter form of catarrh with increased secretion is much more common than the dry form.

As regards the treatment of catarrh, there is much discussion. The douche affords only a slight degree of relief. The fluid flowing slowly and over only a small portion of the passages affected, does not reach all the hypertrophied and diseased mucous membrane, nor does it thoroughly cleanse it of accumulations. The atomizer enables us to make applications to the whole nasal cavity, and by its use we can control to some extent the morbid process, lessen the secretion, and arrest the disease, if the case be a mild one. Powders of all kinds rank with the spray. But with neither is a permanent cure accomplished as a rule. Topical medication to the hypertrophied membrane usually fails. In the use of destructive agents lies the only plan of treatment of any permanent service. Forcible evulsion of the tissue is too painful and bloody. Chemical agents are therefore to be used. Nitrate of silver, advocated by some, will destroy the tissue, but at the same time stimulates the parts beneath, and sets up a further morbid action. Nitric acid, though free from stimulant properties, is liable to erode too deeply and cause ulceration. Chromic acid is not open to this objection. But of all the chemical agents, I prefer glacial acetic acid. It destroys the superficial layer of hypertrophied membrane, and by its absorption seems to control the morbid activity of the deeper layers. It may cause irritation and swelling, but this rapidly subsides, and there are soon voided shreddy masses resembling croupous membrane, after which the symptoms subside. I apply the acid on a flat probe, wrapped in cotton wool, only one side of the probe being wet with the acid, so that the septum of the nose is untouched. The probe is swept through the nasal passages in such a manner that the face of the inferior turbinated bones is touched in its whole length. The application is painful, but the pain is instantly relieved by throwing in from an atomizer a spray composed as follows:

℞ Acidi Carbolici.....gr.j
Sod. Biboratis.....
Sod. Bicarbonatis.....ää gr.ij
Glycerinæ..... ...℥j
Aquæ.....ad ℥j (Dobell)

This solution is also used as a cleansing agent before the application of the acetic acid, and is best applied by means of the douche. If the pain is not relieved by the spray, a solution of morphia may be applied with the atomizer. The application of the acid is to be repeated at intervals of a week, and during the interval the solution is to be used as a douche twice daily. As the disease succumbs to the treatment, the interval may be extended to two or three weeks. By this means we can remove permanently most of the features which render catarrh a source of discomfort. In extreme cases, where the hypertrophied membrane forms projections from the turbinated bones and encroaches greatly upon the nasal cavity, the galvano-cantery, or an écraseur of steel wire may be used to remove the tissue. Dr. Bosworth closed by exhibiting several instruments for the application of the cantery to the nasal passages.

In the discussion which followed, Dr. J. H. Douglass expressed the opinion that catarrh was mainly a constitutional disease, and was to be treated as such, local applications being limited to the use of the douche, heat, and bland agents, like vaseline. Dr. Andrew H. Smith said that the douche could be used very efficiently, and the stream would reach all parts of the nasal passages if projected with some force. He had used, in treating these catarrhs, nitrate of silver, in the form of powder, combining 10 to 40 grains with sulphate of potash ℥j and subnitrate of bismuth ℥j. Such a powder could be blown into all parts of the nose and remain in contact with the mucous membrane. He considered acetic acid as too painful an application for general use. Dr. Asch had applied Dobell's solution as a cleansing agent, as all local applications were useless unless the mucous membrane was clean. He applied a solution of nitrate of silver, gr. xx to xl to ℥j of water, on a brush, and had been able to control most cases of catarrh by this means. Dr. H. Knapp thought it best to abstain from injuring the mucous membrane and resorted to mild local applications daily, for a long time, with good results, especially in children's cases.

Dr. Bosworth, in closing the discussion, expressed his decided preference of the method described in the paper over all those which had been mentioned. He alluded to change of climate as a means of cure, and expressed the opinion that it was only temporarily beneficial, and that the disease was very liable to recur when the patient returned to his home.

Since naso-pharyngeal catarrh is by no means limited to New York, your readers may not be uninterested in this discussion which brought out some of the favorite methods of treatment employed by specialists in this city.

CASE OF DYSENTERY.

In the medical clinic of Dr. Thomson a case of dysentery was shown with the following history: The patient, a laboring man, after exposure to cold and wet, began to suffer from looseness of the bowels. He had several passages daily, attended with pain, and coming on after any exertion and after meals. This condition had continued for two months, and the patient was considerably weakened and much discouraged. The passages were sometimes slimy and watery; at other times they consisted of hard masses covered with mucus and streaked with blood. Dr. Thomson remarked that in a healthy person, after exposure to cold, dysentery was much more likely to develop than diarrhœa. With regard to the diagnosis between these two affections of the intestinal tract, he had observed that the passages in dysentery occurred chiefly in the day-time, while the person was up; that they were brought on by efforts of any kind, and that they were always accompanied by pain, and often by tenesmus. A nervous connection exists between the stomach and the descending colon and rectum, reflex in character, so that any irritation of the one excites the action of the other. As a result, when a patient is suffering from dysentery, the ingestion of food is usually followed by an evacuation from the rectum, and this, in turn, excites the muscular action of the stomach in such a way that the food is expelled through the pylorus before undergoing proper digestion. Hence, patients suffering from dysentery are liable to become much weakened, and in severe cases almost starved. This relation between the act of eating and the evacuations is seen most clearly in chronic cases of dysentery, in which the patients will often declare that whatever they eat passes through and away from them immediately after a meal. This is, of course, not the case, but it is a fact that the undigested masses emptied into the intestine from the irritable stomach remain undigested, and may set up irritation of the upper portion of the gut, and consequent diarrhœa. Thus malnutrition, emaciation and diarrhœa become sequelæ of inflammation of the colon and rectum. In diarrhœa, on the other hand, no relation exists between the passages and the ingestion of food, nor do the passages in simple diarrhœa follow upon exertion. They occur chiefly at night, usually in the latter part of the night, at the

time when the patient is most exhausted. Diarrhœal passages are not attended by severe pain, nor is tenesmus present. They are large, loose watery passages, and are not mixed with blood or pus, as in dysentery. It is not difficult to distinguish diarrhœa from dysentery, if these points are noted in eliciting the symptoms. The present case is one of dysentery. From the character of the discharges, alternately hard masses streaked with pus, and mucus passages containing blood and pus, it is probable that there is ulceration of the rectum, which may extend up into the sigmoid flexure of the colon. The blood and pus come from the ulcers. These cases are often obstinate, and may run on for years until the patient is exhausted. The ulcers cannot heal because they are continually irritated by the feces passing over them. The indication for treatment is therefore to secure for them a chance to heal. A number of cases have yielded to the following method, thoroughly carried out: After every movement inject into the rectum luke warm water containing carbolized oil or oil of peppermint gtt. xx to xl to the gallon. In this way the rectum is kept perfectly clean and disinfected, and the ulcers are allowed to heal. Opium administered at the same time, to reduce the action of the intestine, will aid the process of healing, by preventing the passage of irritant matters into the rectum. The patient is at the same time fed on milk which is largely absorbed in the stomach and upper intestine, and if the milk is given in small quantities frequently repeated, the reflex irritation of the rectum is reduced to a minimum. This mode of treatment succeeds admirably in those cases where the ulcers cannot be reached by exploration of the rectum. When rectal examination reveals the ulcers, applications of nitric acid may be made directly to them with the result of securing cicatrization. If one or both of these methods are employed, a cure may be confidently expected.

CYSTORRHAGIA.

Dr. Gouley, in his clinic on genito-urinary diseases, recently called attention to the liability of cystorrhagia after retention of urine. He considered distension of the bladder as one of the most common of all the causes of hæmaturia. There is no hæmorrhage as long as the bladder remains distended, but the moment the distension ceases, by the too precipitate withdrawal of the urine through a catheter, oozing of blood from the mucous membrane begins. This is due to the rupture of capillary vessels, owing to a sudden change in their condition. While the bladder was distended the vessels were stretched and weakened. When the mechanical support given by the accumulated urine is suddenly removed the extreme tension of the vesical wall is succeeded by extreme flaccidity, the almost empty capillaries are instantly engorged with blood, and their weakened walls give way before the pressure. Hæmorrhage following distension and sudden evacuation occurs most frequently in patients in middle and advanced life, especially when the mucous membrane is not absolutely healthy. It is uncommon in young adults and in children. When it occurs the first urine drawn is clear, but toward the end the stream becomes red, and lastly dark and tarry from the mixture of blood and urine.

To prevent such hæmorrhage Dr. Gouley recommends that an over-distended bladder be emptied very gradually. Draw off 8 or 10 ounces through a soft rubber catheter during five minutes, then wait an hour before drawing any more, and so continue even if 12 to 24 hours are consumed in emptying the bladder entirely. If the urine is very offensive, draw off 10 ounces and inject an equal amount of warm water containing one scruple of biborate of soda. Then draw 10 ounces of the contents of the bladder, and again inject the solution and so continue until the contents of the bladder are no longer fetid. Then proceed to empty it gradually, but never allow the over-distended bladder to be evacuated at a single catheterism. If cystorrhagia occurs, Dr. Gouley recommends the following treatment; After all the urine has been drawn, introduce a soft catheter and leave it in the bladder for 24 hours, thus allowing perfect drainage. The drainage allows the muscular wall to contract firmly, and the contraction alone will stop the hæmorrhage in most cases. If the hæmorrhage is severe and continuous, it will be necessary to draw off the clots by suction made with an aspirator attached to the catheter. Before doing this inject a warm solution of borax and only withdraw the same amount that has been injected. As soon as the clots are removed the bladder will contract and the hæmorrhage will cease. Injections of tannin or alum are only to be used as a last resort, as they may set up a general cystitis. The administration of the fluid ext. of ergot by the mouth will aid in the arrest of severe hæmorrhage, but is needless in mild cases where simple drainage will suffice.

S.

VIENNA MEDICAL SCHOOL has recently lost some of its brightest lights by death or retirement. The list includes Rokitansky, Schuk, Oppolzer, Hebra, Skoda, Sigmund and Hyrtl.

REVIEWS.

INVALID COOKERY; a Manual of Recipes for the Preparation of Food for the Sick and Convalescent; to which is added a chapter of practical suggestions for the sick-room, by Mrs. Julia A. Pye. Edited by Mrs. Eliza A. Pitkin. Chicago: Jansen, McClurg & Co., 1880. $1.50.

We commenced the examination of this book with that prejudice which is generally born of any attempt to popularize a department of medicine; i. e., to explain to the public those things which the public, in the nature of things, cannot appreciate, because they have not had the necessary preliminary training. While it may be admitted that a little knowledge upon any subject is better than absolute ignorance, it may not be said that that whole class of books whose popular title should read "Every man his own Doctor," deserve any particular credit from the reviewer or confidence from the public. But, in turning the pages of this book. we find something which does all that it pretends to do. It is full of choice, concise, practical recipes for the preparation of food for the sick and convalescent. It may well find its way into the hand of every mother and nurse. It is not an attempt to make an essentially scientific subject popular, but deals, rather, in a very admirable way, with an essentially popular subject. It contains a few pages of suggestions for the sick-room which have been written in good taste and judgment. Its closing pages are blank, and have evidently been intended for the introduction in writing of such memoranda as the owner may desire to preserve. It is thereby indelibly stamped as a woman's book, but it is none the worse for that. Indeed, we know of scores of books, some of them written by men, which would have reflected more credit on their authors, had the whole contents been modelled on the excellent pattern of these closing pages.

DISEASES OF THE THROAT AND NOSE, including the Pharynx, Larynx, Trachea, Œesophagus, Nasal Cavities and Neck, by Morell Mackenzie, M.D., London. Volume I. Diseases of the Pharynx, Larynx and Trachea. Philadelphia: Presley Blakiston, 1880; Jansen, McClurg & Co., Chicago.

DISEASES OF THE PHARYNX, LARYNX AND TRACHEA, by Morell Mackenzie, M.D., London. Wood's Library of Standard Medical Authors. New York: Wm. Wood & Co., 1880; W. T. Keener, Chicago.

In the recent flood of throat literature, the work of Mackenzie takes an exceptional place. Unlike most of the late effusions on laryngology, et cætera, this book owes its origin, not alone to the author's desire for a reputation, but also to a real demand by the profession. It is intended as a complete text-book on the subject, and as such it has no peer in our language. It embraces fully the topics indicated in the title, presenting them in a practical and thorough manner, and with but few exceptions introduces all that is really known up to date. Perhaps the most noticeable instance of omission is the want of reference to adenoid vegetations of the post nasal space, and their operative treatment. The work is somewhat bulky, consisting of 440 pages (including the index). It might, no doubt, be abbreviated without loss, but in no single instance do we meet with any objectionable verbosity. The treatment is stated in plain terms, the author's own experience being largely drawn upon. Since the author does not encourage blind faith in authority, but examines himself the proof of the value of any treatment, which, of course, is often found wanting, the therapeutic part of the book may seem less satisfactory to those who want dogmatic statements. This want of precision, however, is surely not the author's fault, but a deficiency of our knowledge.

This excellent book, whose purchase no physician will regret, appears at the same time in another edition from the press of William Wood & Co., New York. This edition, however, in point of paper, type, press work and binding, is inferior to the Philadelphia edition.

OFFICIAL REGISTER OF PHYSICIANS AND MIDWIVES to whom certificates have been issued by the Illinois State Board of Health, under the act of May 29th, 1877, and of physicians and midwives who have registered in the County Clerks' offices, under the act of May 25th, 1877, and who claim to have practiced in Illinois ten years prior to July 1, 1877, but to whom no certificates have been issued. 1880.

This volume of two hundred and eighty-six pages presents a creditable appearance, and shows great care in its compilation. It contains first, the medical practice act, then the State Board of Health act, followed by the register proper, which details by counties the physicians to whom certificates have been issued, registered physicians to whom no certificates have been issued, midwives to whom certificates have been issued, and registered midwives to whom no certificates have been issued. The register is incomplete in one particular, that of alphabetical arrangement, which does not extend beyond the first

letter in each name. This will, it is hoped, be corrected in future issues of the Register. Following the register is a summary which shows that there are now in the State about 4,825 licentiates and graduates. Since the passing of the Board of Health act the number of itinerant specialists in the State has diminished from 73 in 1877 to 9 in 1880, the number of "cancer doctors" from 23 to 4. Eighty-seven medical colleges have each five or more graduates practicing in Illinois. Rush Medical College heads the list with 719, Chicago Medical College being next in rank, with 268 graduates in practice in the State. The Board has revoked 29 certificates, 16 on account of fraudulent representations as to graduation, and the remainder, 13, on account of grossly unprofessional conduct. Four hundred and twenty-three practitioners held spurious diplomas. Sixty-seven physicians were practicing under assumed names. Four thousand, six hundred and fifty-five certificates have been issued to graduates of medical schools. Of this number, the regular school is entitled to about 79 per cent., the eclectic to 11 per cent., the homœopathic to 9 per cent., and the physio-medical to a little less than 1 per cent. The volume closes with indices of physicians, midwives, and towns. The Register is valuable, and it is to be hoped that the State Board of Health will carry out its expressed intention of issuing it annually.

THE ARMY.

Official List of changes of stations and duties of officers of the medical department, United States Army from Oct. 29, 1880, to Nov. 12, 1880.

King, Wm. S., colonel and surgeon. His leave of absence still further extended six months on account of sickness. S.O. 240, A,G,O., Nov. 6, 1880.

Baily, E. J., lieut. colonel and surgeon. When relieved by Surgeon Moore, to proceed to Wilmington, Del., and report by letter his arrival to the surgeon general. S.O. 232, A.G.O., Oct. 28. 1880.

Moore, John, major and surgeon. Relieved from duty with army medical examining board in New York city, and to report in person to commanding general, Dept. of the Columbia, for duty as medical director of that dept. S.O. 232, A.G.O., Oct. 28, 1880.

Spencer, Wm. C., major and surgeon. Assigned to duty at Fort Snelling, Minn. S.O. 129, Dept. of Dakota, Oct. 25, 1880.

Meacham, F., captain and assistant surgeon. Granted leave of absence for one month. S.O. 234. A.G.O. Oct. 30, 1880.

Patzki, J. H., captain and assistant surgeon. Assigned to duty at Jackson Barracks, La. S.O. 126, Dept. of the South; Oct. 29, 1880.

Heizmann, Chas. L., captain and assistant surgeon. The extension of his leave of absence of Sept. 28, 1880, from headquarters division Pacific and Dept. Cal., is further extended two months. S.O. 234 C. S., A.G.O.

Lauderdale, J. V., captain and assistant surgeon. Assigned to duty at Mc Pherson Barracks, Ga. S.O. 127, Dept. of the South, Nov. 1. 1880.

Worthington, J. C., captain and assistant surgeon. Granted leave of absence for six months. S.O. 241, A.G.O., Nov. 10, 1880.

Wood, M. W., captain and assistant surgeon. At the expiration of his present leave of absence, to report in person to commanding general, Dept. of the East, for assignment to temporary duty. S.O. 232, C.S., A.G.O.

U. S. MARINE HOSPITAL SERVICE.

Official List of changes of stations and duties of medical officers of the United States Marine Hospital Service, July 1, 1880, to Sept. 30, 1880.

Bailhache, P. H., surgeon. Relieved from temporary duty as medical officer Revenue Bark, "S. P. Chase," and ordered to rejoin his station, as member of National Board of Health, Aug. 26, 1880. Detailed for duty as medical officer, port of Georgetown, D. C., during temporary absence of passed Assistant Surgeon Fisher, Sept. 17, 1880.

Miller, T. W., surgeon. Granted leave of absence for seven days, from July 17, 1880, July 13, 1880.

Gassaway, J. M., passed assistant surgeon. Relieved from duty at Fort Townsend, Washington Territory, and ordered to report to Surgeon Fessenden, New York, July 7, 1880. Granted leave of absence for thirty days from Sept. 1, 1880, Aug. 9, 1880.

Stoner, J. W., passed assistant surgeon. Detailed as recorder of board for the physical examination of cadets of the Revenue Marine Service, July 6, 1880.

Fisher, J. C., passed assistant surgeon. To proceed to Elizabeth City and Edenton, N. C., as inspector, Sept. 17, 1880.

Goldsborough, C. B., assistant surgeon. Granted leave of absence for thirty-one days, from Aug. 26, 1880, Aug. 13, 1880.

Irwin, Fairfax, assistant surgeon. Granted leave of absence for twenty-one days, from Aug. 14, 1880, Aug. 2, 1880.

Mead, J. W., assistant surgeon. Relieved from duty at San Francisco, Cal., and ordered to assume charge of the service at Port Townsend, Washington Territory. July 7, 1880.

Cooke, H. B., assistant surgeon. Granted leave of absence for twenty days, from Nov. 23, 1880, Sept. 6, 1880.

Guitéras, John, assistant surgeon. To report for temporary duty to Surgeon Sawtelle, St. Louis, July 7, 1880. Relieved from temporary duty at St. Louis, and ordered to report to Surgeon Austin, New Orleans, Sept. 28, 1880.

Wheeler, W. A., assistant surgeon. To report for temporary duty to Surgeon Fessenden, New York, July 7, 1880.

Benson, J. A., assistant surgeon. To report for temporary duty to Assistant Surgeon Goldsborough, Baltimore. July 7, 1880.

Banks, C. E., assistant surgeon. To report for duty to Surgeon Hebersmith, San Francisco, July 9, 1880.

PROMOTIONS.

Godfrey, John, passed assistant surgeon. Promoted to be passed assistant surgeon, from July 1, 1880. July 6, 1880.

Brown, F. H., passed assistant surgeon. Promoted to be passed assistant surgeon from July 1, 1880, July 6, 1880.

APPOINTMENTS.

The following candidates having passed the examination required by the Regulations, were appointed assistant surgeons, July 6, 1880:

John Guitéras, of Pennsylvania.
William A. Wheeler, of Indiana.
John A. Benson, of New Jersey.
Charles E. Banks, of Maine.

BOOKS AND PAMPHLETS.

JOHN REYNDERS & Co., 56 Randolph st., Chicago. Illustrated Catalogue and Price List of Surgical Instruments, Orthopædical Apparatus, Trusses, etc. Third edition.

N. SENN, M.D., Milwaukee, Wisconsin. The Pathology and Treatment of Epulis. Address delivered by invitation before the Wisconsin Dental Society, during its annual session in Milwaukee, 1880, and published by request of the Society. Reprint from Dental Cosmos, October, 1880.

CHRISTOPHER HEATH, F.R.C.S., A Manual of Minor Surgery and Bandaging. Sixth edition; Philadelphia: Lindsay and Blakiston, 1880; Jansen, McClurg & Co., Chicago.

LINDSAY & BLAKISTON. The Physician's Visiting List for 1881: Philadelphia: Lindsay & Blakiston; Jansen, McClurg & Co., Chicago.

JOHN M. WOODWORTH, M.D. First Annual Report of the Supervising Surgeon of the Marine Hospital Service of the United States, for the year 1872. Containing a brief historical sketch of the service from the date of its organization in 1798. Washington, 1873.

The Safety of Ships and of Those who Travel in Them. A paper read at the annual meeting of the American Public Health Association, held in Boston, October 5, 1876. Reprint from Vol. III, Public Health Papers of the American Public Health Association, 1877.

Report of the Supervising Surgeon of the United States Marine Hospital Service, for the six months ending December 31, 1871. Senate Executive Document, No. 36, 1872.

Some Defects in the Immigration service. Suggestions of Remedy therefor, with reference to the Sanitary interests of the country.

Hospitals and Hospital Construction. Reprinted from Annual Report Supervising Surgeon, United States Marine Hospital Service, 1873.

The General Subject of Quarantine, with particular reference to Cholera and Yellow Fever. Extracted from the transactions of the International Medical Congress, Philadelphia, September, 1876.

Contributions to the Study of Yellow Fever. The Yellow Fever Epidemic of 1873; reports from medical officers, United States Marine Hospital service, with note by the supervising surgeon. Reprinted from Annual Report of Supervising Surgeon United States Marine Hospital service, 1873.

J. M. TONER, M.D., Contributions to the Study of Yellow Fever. The Distribution and Natural history of Yellow Fever in the United States; with chart showing elevations of localities where it has appeared from A.D. 1668 to A.D. 1874. Reprinted from Annual Report Supervising Surgeon United States Marine Hospital Service. 1873.

HEBER SMITH, M.D., Sailors as Propagators of Disease. Abstract of a paper entitled, "The Hygiene of the Forecastle." Washington, 1874.

CENSUS OFFICE Department of the Interior, Washington, D. C. Tenth Census of the United States. Illinois: Vermont.

PHILIP S. WALES, M.D., Surgeon General United States Navy. Report on Yellow Fever in the United States Steamship Plymouth, 1878–1879. Extracted from the Report of the Surgeon General of the Navy, 1880.

GEO. J. ENGELMANN, M.D., St. Louis, Mo. Time of Conception and Duration of Pregnancy.

The Treatment of Post-Partum Hæmorrhage. Reprinted from Transactions of the Southern Illinois Medical Association, held at Cairo, Ill., January 22, 1880.

The Dangers Incident to the simplest Uterine Manipulations and Fperations. Reprint from Transactions Missouri State Medical Society, 1880.

D. H. GOODWILLIE, M.D., D.D.S., New York, N. Y. Surgical Treatment of Naso-Pharyngeal Catarrh. Read before the American Medical Association. Reprinted from the Medieal Gazette, July 31, 1880.

AUG. F. ERICH, M.D., Baltimore, Md. A Contribution to the Relative Value of the Different Operations for Delivery in Narrow Pelvis, with the history of eighteen cases. Reprint from the Maryland Medical Journal, October 1 and 15, 1880.

RALPH WALSH, M.D., Washington, D. C. Walsh's Physicians' Combined Call-Book and Tablet. Fifth Edition.

Walsh's Physicians' Handy Ledger.

V. C. VAUGHAN, M.D., Ph. D., Ann Arbor, Michigan. Handbook of Chemical Physiology and Pathology, with lectures upon normal and abnormal urine. Third edition. Ann Arbor: Ann Arbor Printing and Publishing Company, 1880.

TREASURY DEPARTMENT, Official list of Medical Officers and acting assistant Surgeons of the United States Marine Hospital service with their stations. Corrected to Nov. 11, 1880.

ANNUAL REPORT of the Supervising Surgeon General of the Marine Hospital service of the United States for the Fiscal year, 1880.

ANDREW NEBINGER, M.D., 1018 South Second Street, Philadelphia, Pa. An address delivered before the Medical Society of the State of Pennsylvania by the President, at its annual meeting held at Altoona, May, 1880. Reprinted from its Transactions.

C. J. LUNDY, M.D., Detroit, Michigan. Light in the Public Schools, and School life in Relation to Vision. A paper read before the Sanitary Convention at Detroit, January, 1880. Reprinted from the Report of the Michigan State Board of Health.

S. V. CLEVENGER, M.D., Chicago. Plan of the Cerebro-Spinal Nervous System. Read before the Boston meeting of the American Association for the Advancement of Science, Aug. 29, 1880. Reprinted from the Journal of Nervous and Mental Diseases, October, 1880.

CENTRAL FREE DISPENSARY of West Chicago. Thirteenth Annual Report.

AUG. F. ERICH, M.D., Baltimore, Maryland. A Device to Facilitate the Removal of Deep Wire Sutures in the Operation for Ruptured Perinæum. Reprint from Maryland Medical Journal.

Seven cases of Retroflexion of the Uterus, with peretoneal adhesion of the fundus in the hollow of the sacrum, treated by forcible separation of adhesions. Reprinted from the American Journal of Obstetrics and Diseases of Women and Children, Vol. xiii, No. iv, October, 1880.

J. K. BARNES, M.D., Washington, D. C, Annual Report of the Surgeon General United States Army, 1880.

C. SPINZIG, M.D., 1302 S. 5th St., St. Louis, Missouri. Yellow Fever; Nature and Epidemic Character Caused by Meteorological Influence, Verified by the Epidemics of Shreveport and Memphis in 1873, by that of Savannah in 1876, by the Great Epidemic of the Mississippi Valley in 1878, and (in the Appendix) by the one of Memphis in 1879. St. Louis, Geo. O. Rumbold, & Co., 1880.

SURGEON GENERAL'S OFFICE. Quarterly Report of Medical Officers, United States Army, with their Stations and Duties, as Reported to the Surgeon General October 1, 1880, or at date of last Report received at this office.

GRAHAM MCADAM, New York, N. Y. The Protective System; What it Costs the American Farmer. 1880.

MORTALITY IN CHICAGO FOR OCTOBER, 1880. POPULATION, CENSUS 1880, 503,298.

Oscar C. DeWolf, M. D., Commissioner of Health. *M. K. Gleason, M. D., Registrar of Vital Statistics.*

ZYMOTIC.	
ORDER 1—*Miasmatic.*	
Cholera—Infantum	13
Cholera—Morbus	...
Croup	73
Diarrhœa	12
Dysentery	4
Diphtheria	92
Entero-Colitis	10
Erysipelas	..
Fever—Cerebro-Spinal	9
Fever—Intermittent	1
Fever—Remittent	4
Fever—Scarlet	24
Fever—Typhoid	31
Fever—Typho-Malarial	3
Measles	1
Pyæmia	1
Septicæmia	2
Small Pox	3
Whooping Cough	3
ORDER 2—*Enthetic or Inoculated.*	
Syphilis—Tertiary	1
Syphilis—Congenital	1
ORDER 3—*Dietetic.*	
Alcoholism—Chronic	4
" Delirium Tremens.	2
Inanition	14
CONSTITUTIONAL.	
ORDER 1—*Diathetic.*	
Cancer	3
Cancer—Bowels	...
Cancer—Face	1
Cancer—Liver	1
Cancer—Lymphatic Glands	1
Cancer—Rectum	1
Cancer—Stomach	3
Cancer—Uterus	2
Dropsy	5
Gangrene	1
Marasmus—Senile	1
Marasmus—Infantile	8
Rheumatism	1
ORDER 2—*Tubercular.*	
Caries of the Vertebræ	1
Hip Joint Dis.	1
Hydrocephalus	3
Hæmoptysis	2
Phthisis Pulmonalis	80
Tabes Mesenterica	1
Tubercular Meningitis	5
LOCAL.	
ORDER 1—*Nervous.*	
Apoplexy—Cerebral	6
Cerebritis	1
Chorea	1
Congestion of Brain	4
Convulsions—Infantile	55
Encephalitis	6
Hydrocephalus—Acute	1
Meningitis—Cerebral	12
Meningitis—Spinal	1
Meningitis—Traumatic	1
Paralysis	9
Prog. Locomotor Ataxia	1
Softening of Brain	2
Tetanus—Traumatic	...
Trismus Nascentium	1
ORDER 2—*Circulatory.*	
Heart—Organic disease	10
Heart—Valvular disease	13
Heart—Fatty Degeneration.	1
Heart—Hypertrophy	2
Pericarditis	1
Phlebitis	1
ORDER 3—*Respiratory.*	
Abscess—Pulmonary	1
Asthma	2
Bronchitis	8
" Capillary	9
Congestion of Lungs	7
Hydrothorax	1
Laryngitis	5
Empyema	1
Pneumonia	26
Pneumonia—Broncho	3
Pneumonia—Pleuro	1
ORDER 4—*Digestive.*	
Cirrhosis—Liver	3
Dyspepsia	1
Enteritis	12
Fatty Degeneration of Pancreas	1
Gastritis	6
Gastro-Enteritis	4
Hepatitis	4
Hernia—Inguinal	1
Icterus	1
Peritonitis	6
Stricture—Œsophagus	1
Typhlitis	1
Ulceration of Bowels	2
" of Stomach	1
ORDER 5—*Urinary.*	
Bright's Disease	8
Cystitis	1
Diabetes	1
ORDER 6—*Generative.*	
Metritis	1
ORDER—*Locomotary, Osseous.*	
Necrosis	1
Ostitis	1
Synovitis	1
ORDER 8—*Locomotory, Integumentary.*	
Abscess—Pelvic	1
Eczema	1
DEVELOPMENTAL.	
ORDER 1—*Children.*	
Atelectasis Pulmonum	1
Congenital Deformity	3
Congenital Debility	8
Dentition	6
Spina Bifida	1
Tedious Birth	1
Umbilical Hæmorrhage	...
ORDER 2—*Women.*	
Hæmorrhage, Post-Partum	2
Placenta Previa	...
Puerperal Convulsions	...
Puerperal Peritonitis	4
ORDER 3—*Old Age.*	
Debility—Senile	12
ORDER 4—*Nutrition.*	
Asthenia	3
VIOLENCE.	
ORDER 1—*Accident.*	
Burned	2
Crushed	2
Dislocation—Neck	1
Drowning	4
Gunshot Wound	...
Fracture of Skull	2
" Pelvis	...
Rupture—Liver	...
Run over by wagon	3
Scald	1
Shock from R R Accident	8
" " Street Car "	1
Suffocation	2
Wound by fall	6
Poison—Sulphuric Acid	1
ORDER 2—*Homicide.*	
Manslaughter	1
ORDER 3—*Suicide.*	
Cutting Throat	1
Hanging	1
Drowning	2
Ill Defined	4
Total Deaths	766

DEATHS FROM ZYMOTIC DISEASES, PHTHISIS PULMONALIS AND ACUTE LUNG DISEASES, BY WARDS.

WARDS.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Public Institutions	Total
Small Pox																			3	3
Measles																	1			1
Scarlatina				3	8	2	4	2					1	4						24
Diphtheria		1	2	3	4	7	15	1		4	1	1	7	20	9	10	7			92
Croup		1	1		7	8	5	9	5	2	1	2	6	15	4	5	2			73
Whooping Cough										1				1	1					3
Fever—Typhus																				0
" Typhoid		1		2	5	4	2	2	1				1	2	5				6	31
" Cerebro-spinal		1					2				2		2		2					9
" Malarial	1				1					3	1		1				1			8
Diarrhœal Diseases	1	2	1		5	6	2	1	2	2		2		10		1	3		1	39
Other Zymotic Diseases		2		3	4	1	1	3	1			2		2		1			5	25
Totals	2	8	4	11	34	28	31	18	9	12	5	7	18	54	21	17	14		15	308
Phthisis Pulmonalis		5	1	2	7	2	2	3	4	5	3	2	3	11	7	2	6	5	7	80
Acute Lung Diseases	1	1	4	2	3	5	7	5	1	3	2	1	1	10	7	2	2	3	2	59

WARDS.

Wards.	Population.	Density Per Acre.	Deaths under 5 yrs. of age.	Total Deaths in Ward	Deaths in 1,000 of Population.	Wards.	Population.	Density per Acre.	Deaths under 5 yrs. of Age.	Total Deaths in Ward	Deaths in 1,000 of Population.
1	14,765	30.78	2	6	....	12	27,914	12.59	10	22	0.79
2	20,099	51.00	12	26	1 29	13	20,857	14.58	16	34	1.63
3	16,748	38.31	7	23	1.37	14	56,534	18.37	70	113	2 00
4	28,102	26.26	15	35	1.24	15	28.863	33.29	23	50	1.73
5	47,500	16.50	36	70	1.47	16	23,771	44.52	20	34	1.43
6	40,890	9.78	42	60	1.47	17	24,676	64.42	14	31	1.26
7	37,457	26.69	34	53	1.41	18	22,311	40.33	6	16	0.71
8	37,146	57.68	24	44	1.18	Public Institutions			14	49	.....
9	17,477	60.35	7	23	1.31	By violence			5	38	.....
10	15.754	60.61	8	24	1 52	Unknown			.....	.....	.....
11	22,364	38.95	4	15	0.67	Total				766	

AGES.

Under 5 years	369	From 4 to 5 years	31	From 40 to 50 years	45	From 90 to 100 years	2
Under 1 year	178	" 5 to 10 "	80	" 50 to 60 "	44	100 years and upwards	0
From 1 to 2 years	69	" 10 to 20 "	29	" 60 to 70 "	40	Unknown	1
" 2 to 3 "	45	" 20 to 30 "	64	" 70 to 80 "	14		
" 3 to 4 "	46	" 30 to 40 "	71	" 80 to 90 "	7	Total	766

COMPARATIVE MONTHLY MORTALITY.—October, 1878, 587; October, 1879, 699; Sept., 1880, 803; October, 1880, 766.

Premature Births..... 15 Still Births.....48

1.522 deaths in 1,000. Annual rate, per 1,000, 18.26.

Chicago Medical Review

PUBLISHED ON THE FIFTH AND TWENTIETH OF THE MONTH.

E. C. DUDLEY, EDITOR.

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CHANDLER & ENGELHARD, Publishers.

BUSINESS OFFICE, 60 WABASH AVE. (Branch Office, 245 Broadway, N. Y.) EDITORIAL OFFICE, 70 MONROE ST.

VOL. II. No. 11. CHICAGO, DECEMBER 5, 1880. $2.00 A YEAR.

A LESSON TO BE LEARNED FROM ASYLUM CONFLAGRATIONS. — The shocking catastrophe accompanying the burning of the St. Peter's Insane Asylum, which has resulted in the death of between twelve and twenty patients, is but a repetition of a similar accident, which occurred at one of the Canadian institutions, and in which case, also, several lives were lost. The occurrence of two such conflagrations within a few years should call for the earnest attention of all those who are interested in the care and treatment of the insane, in order that a recurrence of similar tragedies may be avoided. Had the counsels of learned and experienced English and Continental experts prevailed with those to whom the building of the St. Peter's asylum was intrusted, the conflagration would not have been attended with loss of life. Instead of a single, prison-like structure of several stories, in which the insane are penned up like so many convicts, the institution would have consisted of several detached buildings of such small dimensions, that in case of a fire occurring in any one of them, the patients could have been taken out in a few moments, and instead of freezing to death outside of the institution, as it is feared some of the missing patients of the Minnesota institution did, would have found an adequate refuge in some of the neighboring pavilions. But the central authority on asylum building, the gifted poet on the philanthropical toys of Utica, has decreed otherwise. Within the past few years, the timid attempts of some of the more independent superintendents to erect cottages and pavilions have been repudiated, and the three million dollar asylums of Buffalo, Poughkeepsie, Morristown and Danvers are built on the same notorious ladder and prison plan promulgated at Utica, and whose adoption has borne its legitimate fruits at St. Peter.

It may be true that the division of the asylum into several more or less detached buildings would break up the one-man power of the medical warden, might require the appointment of a larger number of assistant physicians, and compel trustees to appoint as attendants competent and conscientious men, and not political hangers-on. It may be even true that, as the Oshkosh superintendent claimed several years ago, this plan would be very inconvenient in winter, as the superintendent would have to walk through the snow to get at the pavilions. But we contend that all this should not be weighed in the balance, even for a moment, against the greater comfort and safety of the lives of several hundred insane patients.

How many more such auto-da-fes as those of Beaufort and St. Peter must yet occur before public opinion will seize hold of this matter? From the Asylum Association, it is quite evident, we have no reform to expect.

THE PUBLIC LIBRARY.—In our last issue we called attention to the conspicuous mismanagement of our Board of Education, with respect to our public library building. This building is now leased for a long term of years, to the First National Bank. The public library is therefore permanently debarred from taking possession of its own peculiar heritage. It has been swindled and fleeced by the public administrators of its own concerns. In fact, our library building might as well be in Patagonia as in Chicago, for all the benefit it is, or is likely to be to the library. Indeed, we are inclined to think that the Patagonians would take a more enlightened view of the situation and their duties in the premises than a majority of the members of our board of education have evinced thus far. It is impossible, from any standpoint of equity, or good sense, or prudence, to account for the stupid and obstinate action of the board of education. Yet we are determined to sturdily resist the conviction that itching palms and yawning pockets had anything to do with the result.

And now comes the question, what of the future of our public library? Where shall be its home? What can the city do for it? Does the city own any property which it can control separately and apart from the board of education? The library should be central; should be easy of access by street car lines from all parts of the city; should have plenty of room both upon and above the ground floor, not only for its present needs, but for its future growth. It is entirely practicable, and would be eminently wise, also, for the Library Board to provide special apartments for a general scientific library, which apartments might also serve as places of meeting for the various scientific bodies of the city. Most, possibly all, of these scientific societies have small libraries of their own, but we have in the city no single scientific library approaching completeness. In fact, the great, pressing, imperative need of the scientific men of Chicago at the present time, is a large, complete and easily accessible, scientific library; one which is open alike to all students of whatever name or persuasion. Now we cannot reach this desideratum at once; such a library must be built up by the slow process of accretion. But if the books pertaining to scientific matters now in the public library, could be united with the books of the same character which are hidden away in the rooms of the various scientific bodies, this aggregation of books would form a respectable beginning. Moreover, the community of interest thus established among scientific men would of itself hasten the growth of such a library. If, coupled with the movement, two or three apartments could be set apart, under proper regulations, for the use of the scientific societies, the interest in the library would be greater still. The public library building would become a sort of scientific Mecca, towards which faithful scientists would constantly turn their faces; or a kind of scientific exchange, where students could meet for study or consultation. The benefits of this plan are self evident, they need no elaborate demonstration.

As to location, the site which already in equity belongs to the library, the old post office building, is in every way most excellent. It answers all requirements, and public opinion—rather public indignation—ought to demand imperatively that the property be turned over to the Library Board in spite of all bargains to the contrary, on the principle that the will of the people is the supreme law. Let the scientific bodies of this city move unitedly; let the daily press open its potent batteries; let the religious press raise its influential voice; let the clergy speak in public and in private; let all the people who care anything for the future of our public library, move en masse towards the accomplishment of this most desirable end, and especially let the medical profession of the city, without regard to "school" or doctrinal belief, work as one man to the end that our scientific library be a living reality at the earliest possible day.

LONDON MEDICAL SOCIETIES.—The annual sessions of the seven large medical societies of London, (Medical Record, Nov. 27) began last October. These are the Obstetrical, Clinical, Hunterian, Medical, Pathological, Harveian, and Medical and Chirurgical.

SECTION OF THE EYE-NERVES VERSUS ENUCLEATION OF THE EYEBALL.—In all the recent meetings of ophthalmologists, the question has been discussed, "Can an eyeball which, according to all indications, should have been removed before, be saved by section of the optic and the ciliary nerves?" Obviously the advantages of this operation are decided. Apart from the resistance of the patient to extirpations, and the cosmetic effect, which the physician cannot neglect for his own sake, it must be borne in mind that removal of the eyeball leads in young persons to shrinkage of the orbit and deformity of the face. But can sympathetic disease of the other eye, the formal indication for removal, be prevented or stopped by nerve section? The latter operation is not entirely new. It was advised by Graefe many years ago, but as far as we know, not actually performed by him. E. Meyer, however, cut some of the ciliary nerves in four cases of circumscribed ciliary pain, by transverse incision through the sclerotic and choroid, behind the tender spot. The result was satisfactory, but still he did not risk the procedure in any case of existing sympathetic ophthalmia. It was performed also by some other oculists, with fair success, but the operation sank again into oblivion. In 1877 it was revived by Shoeler, of Berlin, who described in his annual report for 1877 ten successful cases. Up to the present time he has operated on about fifty patients altogether. The operation was soon after taken up by Hirschberg and Schweigger, and since then by many others. Schoeler originally divided the external rectus muscle, and thus reached the optic nerve from the external side. Subsequently he reunited the rectus muscle with a suture. Schweigger, however, proposed to take the shorter and more direct route by dividing the internal rectus and getting at the nerves from the nasal side. The muscle is retained in place by a catgut suture before it is cut. Hereupon a small, sharp, double hook is inserted into the sclerotic, and the eye is rotated until the posterior pole is fully exposed, which necessitates division of the insertions of both oblique muscles. With the scissors he now cuts all connections between the eyeball and the orbital tissue, thus severing completely the optic and all the ciliary nerves. Hereupon he reunites the internal rectus and the operation is complete. Knapp avoids the division of any of the muscles by beginning with a meridional incision of the conjunctiva between the upper and the internal rectus. Using the sharp, double hook, the eye is rotated and the posterior pole is denuded. A modification of doubtful utility is described by Dr. Eug. Smith (Michigan Medical News, April, 1880). He makes two consecutive incisions, one between the external and the other between the internal and the superior rectus. The nerves are cut by passing the scissors through the openings. Rotation of the eyeball with the sharp hook must certainly afford a better chance to divide all nerves than the blind cutting through an opening in Tenon's capsule. Thus, while some operators avoid cutting the muscles, Meyer, on the other hand, divides both external and internal rectus, as well as the oblique muscles, reapplying them afterwards with sutures.

The operation is not followed usually by much hæmorrhage, which, as a rule, is stopped by the use of the pressure bandage. Still, protrusion of the eyeball has been caused a few times by accumulation of blood behind it. In two such cases, Pflüger was forced to enucleate subsequently. Most observers of large experience, however, have had no further trouble from this source, and the special combination of scissors and hæmostatic forceps devised by Warlomont seems almost superfluous. A more disagreeable sequel to the operation is the occurrence of ulceration of the cornea, which has been rarely seen, however. In its most intense form this manifests itself as necrosis of the entire anterior half of the eyebell, leading even to destruction of the stump. But of these accidents we have not seen more than half a dozen reported in the literature of over one hundred and fifty cases.

The most important question is whether the operation can be done thoroughly. The completeness with which the ciliary nerves are destroyed depends, of course, on the thoroughness of the operator. Still, if according to Cruveilhier, two or three ciliary nerves enter the sclerotic anteriorly underneath the

recti muscles, at least in some cases, these fibres would necessarily escape in the operation. In fact, on testing the cornea after the operation, it has not been found completely deprived of sensibility in some few instances. A perfect operation must necessarily leave the entire cornea anæsthetic. Some observers have claimed an immediate reunion of the divided nerves, since the sensibility returned to some extent within one to three weeks. This we must deny emphatically, since divided and degenerated nerves are not regenerated in so short a time. Probably some of the fibres were merely injured, but not cut. But numerous observations render it certain that within some months a regeneration of the divided nerves may occur. In quite a number of the cases reported, the sensibility of the cornea became established within half a year or even less. In some of these no further trouble was experienced, but in others the pain returned, as well as the signs of affection of the other eye, and enucleation was finally resorted to. The question of the regeneration of the ciliary nerves was tested also in experiments on dogs by Redard, and the most conclusive proofs were found of both the anatomical and functional recovery of the nerves from the division.

Hence, various operators are not content with mere section, but attempt resection as much as possible of the optic and ciliary nerves. Some of them, like Meyer and Schweigger, claim to have been perfectly successful in preventing reunion of the nerves. But still, observations begin to appear which prove that even the resection is not a complete substitute for enucleation. We certainly do know that in other localities of the body larger pieces of nerve tissue than can be removed from behind the eye, are regenerated.

These observations point out about the following scope for optico-ciliary neurotomy. In all cases in which sympathetic ophthalmia has begun in the other eye, too much is at stake to venture upon nerve section. But in all accidents of one eye, which experience has shown will lead sooner or later to involvement of the other organ, a preventive neurotomy is justifiable. The patient, however, should be informed of the uncertainty of the operation. The most decided indication fo

r it is the persistence of pain in an eye blind from an affection not apt to be propagated to the other side, like non-traumatic cyclitis and especially absolute glaucoma.

Paralysis Agitans.—M. Luys has presented to the Société de Biologie, Paris, plates of microscopic preparations of the pons in this disease, that exhibit remarkable variations from the state of health. The cell-elements were found hypertrophied to nearly twice their usual normal diameter. He concludes that this fact, which is a new one, furnishes a rational physiological explanation of the symptoms of the disorder. We have in it, he says, a function, hyperexcitation of the excito-motor tracts of the spinal axis, that has passed beyond the stage of volitional control. This discovery of the concomitant hypertrophy of the generating mechanism of this influence in the pons, seems to indicate the natural relations between them, the hypertrophy being the semeiological index of the phase of motor excitation to which the nerve element has been subjected. The fact, however, though good as far as it goes, does not seem thus to afford a complete explanation of the pathology of paralysis agitans.

Amblyopia Due to Tape-Worm.—An instance of this rare coincidence is abstracted in Hirschberg's Centralblatt für Augenheilkunde, (October, 1880) from the Italian, by Dr. F. Morand. A delicate girl of eighteen years, who had formerly had epileptiform convulsions, complained of seeing sparks, and of dimness. Her sight diminished until the movements of the hand could only be seen at ten centimetres distance. (This figure is probably a misprint.—Ed.) The pupils were wide, but mobile. The optic discs had a grayish white appearance, and the retinal vessels were somewhat dilated. She was known to have tapeworm. After two doses of fifteen grammes kousso followed by castor oil, the worm was passed, and the patient fell into an intense sleep. On awaking she could count figures at two metres distance, and the pupils resumed their normal size. Within five days vision was normal.

Excision of the Knee.—Mr. Timothy Holmes advanced the following propositions at the meeting of the British Medical Association, (British Medical Journal, August 14, 1880), as the results of the most recent experiences on the subject of excision of the knee: I. Excision of the knee is one of the indispensable resources of surgery, and is useful in all three classes of cases; viz., in those where, otherwise, amputation would be indicated; in those where the expectant treatment might succeed, but is dubious; and in cases of vicious anchylosis. II. As a substitute for amputation, it is indicated in early life, and in non-tuberculous patients; in cases of limited caries of the bone, of degeneration of the synovial membrane, and in some conditions of necrosis of the articular surfaces; possibly, also, in abscess in the ends of the bones. III. As a substitute for the expectant treatment, it seems to be justifiable, and is extensively used in cases where the patient's circumstances, and the slow progress of the case render the surgeon hopeless or very doubtful of recovery with sound anchylosis. IV. It is also frequently used, and is very successful, in cases of vicious or deformed anchylosis. V. Attempts have been made to limit the place of excision by opening the joint and drainage, and by some other partial methods. These attempts have been fairly successful, especially in cases where the affection is rather of the synovial membrane than of the bones, and they deserve more extensive trial than they seem as yet to have obtained. VI. At the same time, the mortality from excision of the knee seems of late years to have been so greatly diminished as to encourage the hope that the limit of age, which it has been found necessary hitherto to observe, may be extended, and it may be judged prudent to apply the operation to the treatment of the more chronic affections of later life, such as chronic rheumatic arthritis, more extensively than has been done up to the present time.

Registration.—Two thousand two hundred and fifty physicians have registered in New York City alone, since the passage of the New York medical practice act.

What Constitutes the Black Head of the Comedone.—Under this heading Unna, of Hamburg, disposes of a long cherished dogma, advocated by Wilson, Hebra, Baerensprung, Rindfleisch and Virchow, that the black so-called head of the comedone is due to the accumulation of and staining by dirt at the uppermost part of that body. He found that the black head existed in comedones that were so deeply seated in the skin that the overlying layers of epithelium rendered these invisible, so that he was compelled to suppose that if dirt were the real cause of this coloration, it must have got there while the follicles were open, and then the epidermis have grown over the opening of the follicle. But he finds that this is not the case, and argues, that if dirt were the cause, black-headed comedones should be found with greatest frequency in coal miners and others engaged in dusty occupations, and also more frequently in the face than in other parts of the body. This is not the case, however. The crucial test was now applied by Unna, of examining the substance microscopically, and no dirt or indications of dirt were found. The few colored particles which he discovered showed the action of ultramarine, and the dark color resulting from their presence, disappeared on applying acids. On this the author bases a treatment of the skin with dilute acids, as these in the first place act directly cosmetically, and in the second, stimulate the skin to normal activity. A comedone is a very little matter, it is true, but it is just as well for physicians to have a basis for knowing that want of cleanliness can be no cause of acne punctata.

Palatable Quinine.—Dr. E. R. Dodson, of Baltimore, writes to the Maryland Medical Journal that he has found the unpleasant taste of quinine largely ameliorated by giving it with Liebig's liquid extract of beef, and that he has been able to administer it in this way in cases where otherwise it was impracticable. He says also that this preparation of beef, taken before giving the quinine, appears to have a tendency towards preparing the stomach for its reception.

ETRONOTOMY.—In the October number of the American Journal of Obstetrics, Dr. Robert P. Harris, of Philadelphia, suggests the substitution of the word etronotomy for the ones commonly used in designating abdominal sections. We commend the suggestion and trust that it will be generally adopted. The profession cannot be too exact in nomenclature. In the paper mentioned above, Dr. Harris recommends that etronotomy be invariably performed in rupture of the uterus and escape of the child into the peritoneal cavity. The remarkable success of Keith and other distinguished ovaristomists during the past two years has been abundantly proven due to the extreme care with which the abdomen has been cleansed and left thoroughly dry. The shock is increased, undoubtedly, by the peritoneal section, but the additional safety insured by the thorough cleansing of the peritoneal cavity, which can be accomplished in no other way as effectually as through abdominal section, more than counterbalances the additional shock, in our opinion; while that caused by introducing the hand into the abdominal cavity through the ruptured uterus and performing version must be greater than that caused by a clean peritoneal cut. Dr. Frommal, of Berlin, (Medical Record) reports three cases of rupture of the uterus where success attended the irrigation of the peritoneal cavity with carbolized water. He prefers this treatment to laparotomy, but admits that it is only applicable to those cases where septic infection has not already taken place. Dr. Levenstein (Ibid) recommends a continuous irrigation of the uterus with dilute tar water (1–20), salicylate of soda (1–250), chlorate of potassium (1–200), chlorinated lime (1–350), or carbolic acid (1–100), etc., in septic puerperal diseases. The apparatus, which consists of a large rubber tube fastened by tapes to a belt and curved to enter the uterus, allows the water to pass drop by drop into the uterus, and a vessel is placed to catch it as it leaves the vagina and drops through a hole cut in the mattress. In three months the Doctor treated forty-one cases, with thirty-four per cent. mortality. Our own experience in treating septic diseases and in avoiding them after abdominal sections, would lead us to throw aside the admission of Frommal and insist that irrigation of the peritoneal cavity should be practiced even after septic infection had commenced, trusting to the efforts of nature to throw off the poison already absorbed, and to irrigation as the best means of preventing the farther absorption of the septic material; and we can conceive of no reason why Levenstein's plan, with some modifications, should not be generally adopted. Given a case of ruptured uterus with escape of the fœtus, we deem the operation of etronotomy, followed by continuous irrigation, the course which will give the minimum of mortality.

THE INFLUENCE OF DIATHESIS ON EYE OPERATIONS was referred to by Galezowski at the recent ophthalmic congress at Milan. He had repeatedly seen suppuration occur after well-performed operations, without traceable cause except previous syphilis. The rapid improvement induced by the use of proto-iodide of mercury, confirms the view that the trouble is referable to the diathesis. The influence of the rheumatic tendency shows itself in hæmorrhages. Iritis is also likely to occur seven or eight days after the operation. Salicylate of sodium was found the most reliable of the anti-rheumatic agents.

POST PARTUM HÆMORRHAGE.—We have recently had two cases of post partum hæmorrhage, both of which were controlled by the prompt use of ergot and hot water. The two cases presented radically different aspects: One labor was followed by a flaccid condition of the uterus and a constant tendency to distension as the blood accumulated in the cavity; the second gave a firmly contracted uterus, into the cavity of which the finger could barely pass an inch and a half. In both cases a lateral laceration of the cervix was recognized a few days later. In the first a laceration had existed, to our personal knowledge, for some years. In the second, a primipara, the laceration was complete to the vaginal junction on the left side. Dr. Crawford's suggestion that cervical laceration may cause severe arterial post partum hæmorrhage may explain the discrepancy in the clinical characteristics of the two cases.

LOCAL.

WEST CHICAGO MEDICAL SOCIETY.

At the November 22 meeting of this society, three interesting cases of aortic aneurism were reported, and specimens exhibited by Dr. G. F. Bradley. It is to be hoped that Dr. Bradley will publish these reports, as the phenomena presented, in one case, especially, were very peculiar and well worthy of note. Dr. Allen W. Hagenbach, assistant superintendent Cook County Hospital for the Insane, then presented a paper on surgery among the insane. The essayist first spoke of the suicidal tendencies of the insane, and cited as striking examples of this, attempts at suicide by cutting through the chest walls with a small piece of glass, and by making several incisions in the abdominal walls with a pair of rusty scissors. Self-inflicted injuries are common among the insane, as cutting the head, face and chest, piercing the hands, breaking out the teeth, etc. Homicidal tendencies were next mentioned. At least two inmates of the asylum have died from injuries inflicted by other patients. An attendant lately received a severe cut about the face from an epileptic patient. The author then reported a case of Pott's fracture of the fibula, to illustrate the difficulties sometimes met with in surgical practice among the insane. In this case, splints, plaster of Paris dressings, adhesive plaster dressings, the straight jacket and other means of restraint proved useless, as the patient would twist and turn, thereby doing himself more injury than any surgical appliance could counterbalance. At last, frequent manual manipulations were resorted to with excellent results. Foreign bodies in the pharynx, larynx and œsophagus are occasionally met with, as a large number of the insane swallow their food almost without mastication. A case was reported in which the patient, persecuted by "spiritual enemies," filled the auditory canal with lye. A case of sub-occipital abscess was next reported, which was cured by rest. Obstetrics among the insane are often attended with difficulties, owing to the peculiar mania of the patient. The paper closed with the report of a case of perineal abscess and gangrene of scrotum, involving nearly one-half of the scrotal tissue, which was healed in less than a month. In the discussion Dr. Hagenbach stated that among the patients at the county asylum, he had seen, perhaps, twenty-five cases of hæmatoma. Dr. Fenger advised the use of compression and bandaging in the treatment of this affection. The reading of Dr. Holmes' paper was, on motion, deferred until the next meeting.

CHICAGO PHILOSOPHICAL SOCIETY.

Dr. Hosmer A. Johnson, read a paper before this society, November 20, on "The Germ Theory of Disease." The author sketched rapidly and in a masterly manner the growth of this theory and its ramifications, giving the various hypotheses advanced by different scientists, discussing and commending or condemning them, and closed with the recommendation that we afford these disease germs as little shelter as possible in our homes. The paper was discussed by Dr. Adam Miller, whose remarks were open to one criticism, that is, he seemed studiously to avoid the germ theory. He descanted upon the disagreement of doctors, longevity of scientists, the mystery of existence, cholera, but neither criticized the author's paper, nor advanced any new ideas respecting the germ theory. Professor de la Fontaine criticized the lecturer as being too undecided. Dr. A. R. Jackson stated that he did not believe in the germ theory, and criticized the lecturer as not having been sufficiently explicit, and as not having given due weight to arguments against the germ theory. Dr. Johnson replied to these remarks and criticisms, briefly and fully, stating that he believed in the germ theory, but was not certain whether the disease existed in the germ or its environment.

Dr. J. S. Jewell will read a paper on "The influence of our present civilization, in the production of nervous and mental diseases," before the Philosophical Society, December 11. Among other matters he will discuss the infrequency of nervous diseases among animals, the infrequency of insanity among children, and the effects of stimulants, sedatives and narcotics in the production of nervous diseases.

CONTRIBUTIONS.

THE ENDOSCOPE.

In the Local Treatment of Chronic Gonorrhœa or Gleet and Gonorrhœal Rheumatism.

BY DRS. CHRISTIAN FENGER AND A. HINDE, CHICAGO.

I. THE ENDOSCOPE.

It was in the first quarter of the present century, that the experiment was first made to render visible the urethral canal from its meatus to the bladder, by Barini in Frankfort, in 1806, Fisher in Boston, 1824, Segalas in Paris, 1826, and Hacken in Riga. These experimenters failed to attract professional attention.

To Desormeaux, after years of arduous toil in this field of investigation, we owe the credit of successful accomplishment. In 1852 he exhibited his endoscope in the French Academy. In 1865 he published his valuable monograph[1] on this subject, in which he advanced a series of facts and original observations which have opened up a new path in the diagnosis and treatment of urethral diseases.

Desormeaux's instrument is too well known to need description here, therefore we shall only mention a few details, showing some defects in his original instrument. Desormeaux's lamp gave insufficient light, and on this account Bruns used the calcium light, and Dr. Andrews, of Chicago, the magnesium light. These modifications were too complicated and hence were not generally used. At the present time kerosene or kerosene and camphor, form the burning material for the lamp. Desormeaux's lamp is connected with a tube containing a reflector and telescope; to the end of the latter are connected the urethral tubes. Desormeaux's instrument is too costly—one hundred and fifty francs, (twenty-five to thirty dollars)—and also too complicated for general use, and consequently simplified instruments have been invented by [2]Warwick and [3]Wales, but their instruments have not come into general use, and Fürstenheim pronounces them inefficient.

After several years of experimentation with a view of simplifying the endoscope, I decided upon the use of the following instrument:

I. For the lamp a circular wick; ordinary kerosene is all sufficient,

II. A common, laryngoscopic reflector is also needed, but if sunlight can be obtained, a plain reflector will best answer our purpose.

III. The tube for the urethra as shown in figure I, is funnel shaped at the outer end, and throughout the remainder of its extent is cylindrical, of one diameter, and is provided with a movable plug *a* to facilitate its introduction within the urethra.

The material of which it is formed is pure silver, and the interior of the tube is carefully polished longitudinally instead of being blackened as in Desormeaux's instrument, so as to utilize the entire light thrown into the expanded outer extremity. The tube is six to seven millimetres in diameter, and thirteen to eighteen centimetres in length, the latter length being sufficient to explore the vesical neck.

Fig. I.

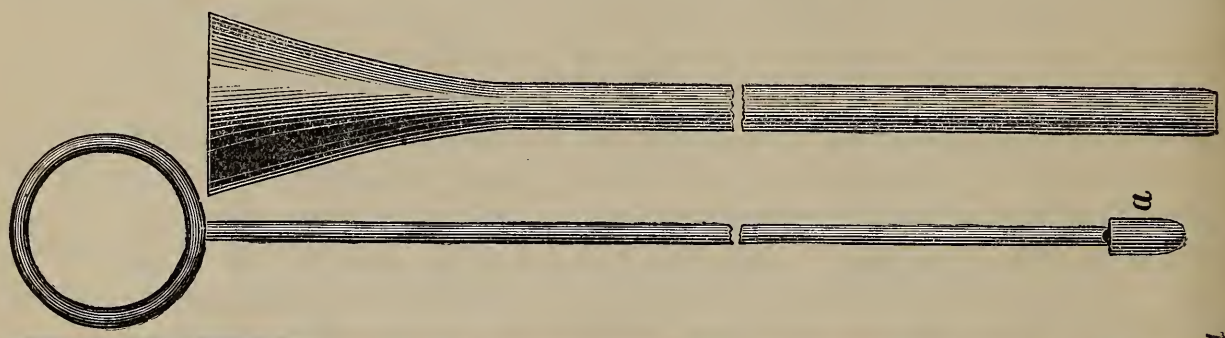
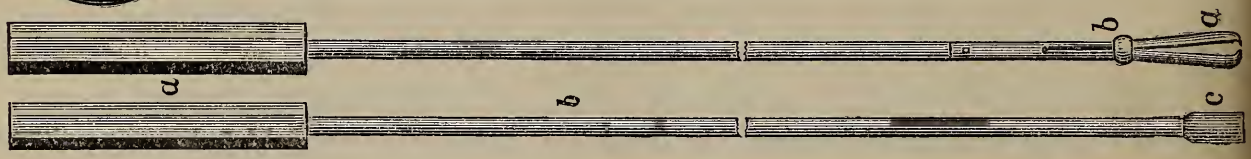


Fig. II.



IV. The applicator as shown in figure II, consists of a cylindrical gold receptacle, at one end attached to a silver or copper wire, terminating at the opposite end in a handle. The diameter of the wire is one and one-half millimetres, and the length of the entire instrument twenty-four centimetres. In the golden cylinder *c* we imbed a pencil of sulphate of copper. The impure variety of the latter is to be preferred because of its less friable nature, or we may use a pencil of diluted nitrate of silver. The imbedding substance is shellac, which is first melted in the cylinder, before the insertion of the caustic pencil.

The cotton and brush holder, which is made

1 De l'endoscope et de ses applications au diagnostic et au traitement des affections de l'urethre et de la vessie, Paris, 1865.

2 British Medical Journal, 1867, p. 124.

3 Virchow's Jahresbericht, 1868, Band II, p. 180.

of copper wire, has a similar handle, and is of the same length as the foregoing applicator; it is split at the inner end *a* forceps-like, and has a ring attachment *b* to fasten whatever material is desired to swab out the urethra. A piece of sponge or cotton is generally used to clean away the mucus, et cetera. To complete our armamentarium, Desormeaux's probe may be added to our list.

If it be possible by means of the foregoing instrument to get as good a view of the posterior portion of the urethra as we could by means of Desormeaux's endoscope, as we claim we can, then this method has the following advantages over his:

(*a*). It is less costly; for the lamp and mirror are the same as those used for the larynx and ear, etc. Therefore the only outlay will consist in the cost of the tube and other instruments.

(*b*). It is easier to introduce the applicator, et cetera, through our funnel-shaped tube than through the linear opening on the under surface of Desormeaux's tubes.

II. CHRONIC GONORRHŒA OR GLEET.

There is no doubt that endoscopy has advanced the diagnosis and treatment of this disease considerably, and most of the modern authors on this subject are agreed upon this point.

As bearing upon this matter we ask permission to quote from a few of the most prominent writers: Cruise, of Dublin, says: "I dare to hope that the endoscope in the future will produce as complete a revolution in our knowledge of many obscure diseases of the urethra as stethoscopy in its period has done for the diseases of the heart and lungs.[1]

Fürstenheim, of Berlin, says that "the endoscope is of such importance in the diagnosis of gleet that in future we can no more abide by the diagnosis of gleet than we can by that of leucorrhœa as a disease per se."[2]

Tarnowsky, of St. Petersburg, says in his recent large monograph on gonorrhœa,[3] p. 146: "It was not until Desormeaux's invention that we were enabled to arrive at a precise knowledge of what we have to encounter in a chronic inflammation of the urethra." He is sorry that this advantage is so little employed at the present time. Chronic gonorrhœa, blennorrhœa, la goutte militaire, means only a slight discharge that continues indefinitely, and like a cough, is only a consequence and a symptom belonging to or dependent upon a disease in the deeper parts of the urethral tract. Such a symptom loses its value as soon as by other means we are enabled to make a correct diagnosis of the disease of which this is merely a symptom.

The gleet is well known to be an obstinate and stubborn disease as concerns its treatment, but under these improved methods it will become more and more amenable in proportion to the more extended use of the endoscope, thus showing that the relapses are always due to imperfect cure at the diseased locality.

The different morbid conditions of the urethra, upon which the discharge or acute exacerbations depend, and which were formerly called gleet, are the following:

I.—THE SUPERFICIAL INFLAMMATION OF THE MUCOUS MEMBRANE IN THE POSTERIOR PART OF THE URETHRA.

This most frequently follows an acute gonorrhœa and has no other symptom than a slight, whitish discharge in the morning. It is often interrupted by acute attacks of gonorrhœa, due to improper diet, liquor, or coitus, and is often followed by epididymitis. Bougies can be introduced with little pain or resistance. Through the endoscope we see the mucous membrane in the entire posterior half of the urethra markedly injected, smooth and of dull appearance, because its epithelium is absent. This injected portion is not sharply defined, but passes insensibly into the normal mucous membrane of the anterior portion of the urethra. This disease is most frequent and also most benignant, as the material for stricture has not been organized as yet and possibly never will be. In spite of the superficial character of the inflammation, it is often very slow in subsiding under the ordinary treatment.

Case I. Superficial Urethritis of two months' standing. Local treatment for three and one-half months. Recovery.

V. Aged twenty-three. Student. Commenced treatment December 14, 1871. Five years previously contracted a gonorrhœa that lasted six months; two years later a similar attack; two months ago a gleet without pain and with a scant discharge. A bougie, (Charrière) No. 18, passes easily into the canal. Through the endoscope we find the whole posterior half of the urethra diffusely injected, but with no visible swelling of the mucous membrane. The sulphate of copper was applied every three days; the patient uses an injection of sulphate of zine and later one of subnitrate of bismuth.

January 27, 1872. The discharge continues; stopped the copper and substituted a tick of diluted nitrate of silver once a week.

February 4, 1872. The discharge has increased considerably, therefore the nitrate of

1 The utility of the endoscope as an aid in the diagnosis and treatment of disease. Dublin Quarterly Journal of Medical Sciences, Vol. 39, 1865, p. 329.

2 Ueber Endoscopie der Hahnroehre und Blase. Berliner klinische Wochenschrift, Jahrgang 7, Nos. 3, 4, 1870, pp. 29, 47.

3 Vortraege ueber venerische Krankheiten. Berlin, 1872.

silver was stopped; recommenced the sulphate of copper and gave a mixture of cubebs and alum, ℥j to the ʒ, of which a teaspoonful is given three times a day.

February 20, 1872. Discharge stopped.

March 3, 1872. Mucous membrane of the posterior portion of urethra normal in appearance. The mucous covering of the membrane contains no pus cells, but only squamous epithelial cells.

Case II. Superficial Urethritis. Local treatment for two months. Recovery.

S., Aged thirty. Well nourished, robust, male, had in June, 1868, his first gonorrhœa, which was cured by the usual treatment in from six to seven weeks. In the spring of 1869 he found, without any known cause, a drop of white matter every morning in the meatus urinarius, and from time to time slimy matter passing whilst at stool.

Injections of nitrate of silver, sulphate of zinc, subnitrate of bismuth, combined with internal use of copaiba, decoctum uvæ ursi, sitz baths, and bougies, et cetera, caused the discharges to cease after two months, but only to return again in August, after a coitus with a condom, in the form of an acute gonorrhœa and this was accompanied by an acute epididymitis on the right side. In spite of the usual treatment the gleet continued for six months. It then stopped for two months; returned in March, and was not subdued by any treatment.

June, 1870, local treatment was commenced. Introduction of bougies showed no constriction in any part of the urethra, nor any sore points. Mucous membrane in bulbomembranous portion was darkly injected for an extent of five to six centimetres, and in this portion was seen a little whitish matter covering the mucous membrane, consisting of pus cells, even when it was impossible to notice any discharge on pressure at the meatus urinarius. The sulphate of copper was applied twice a week. On the succeeding day after the application an augmented discharge was noticed in the morning, but on the next morning the discharge was lessened and thinner, and thus it continued for five weeks, when he disappeared on a voyage for one month. On his return, there was a little milky moisture at the meatus each morning, but so little that a specimen could not be obtained on a microscopic object glass for examination.

The application of sulphate of copper three times a week for three weeks stopped the discharge entirely. Late in September he commenced coitus without any discharge, and in December there was no noticeable redness of the mucous membrane.

Case III. Superficial urethritis of four months' standing. Local treatment for two months. Recovery.

V. Sea captain, aged thirty, healthy man. Four years ago contracted first gonorrhœa, which lasted four months. One year later, second gonorrhœa, which lasted six months. In the summer of 1869, after coitus with condom, a discharge set in, which stopped in a month, after the usual treatment.

May, 1870. Acute gonorrhœal attack, treated by one injection of nitrate of silver, (one to fifty). Later, a solution of sulphate of zinc, cubebs and alum, et cetera. The gleet remained, and for this he came under treatment the following September. Through the endoscope was seen, in the posterior part or the urethra, a patch of redness five centimetres long, but no noticeable swelling in the mucous membrane. The latter was, however, covered with a small amount of whitish, mucous matter, containing numerous pus cells but only few epithelial cells. The sulphate of copper was applied three times a week, and in two weeks the discharge stopped.

He went on a voyage for one week, and the discharge returned. After this he was treated every second day for two weeks. Treatment was now purposely suspended, to test the recurrence of the discharge, and it was not until the fifth day that he could gather a sufficient quantity on an object glass for an examination. This demonstrated very few pus cells, but many epithelial cells, in different stages of development, from a nucleus, surrounded only by a rim of protoplasm, to a fully developed squamous epithelial cell. Consequently the treatment was continued two or three times a week till the end of November, when a sample of the mucus from the deeper part of the canal was taken on a glass rod or pipette, and, under the microscope, showed no pus cells, but only epithelial cells, in various stages of development.

In the middle of December the mucous membrane was still reddened, but the mucus contained full-grown epithelial cells, the treatment was stopped, and no gleet remained.

Case IV. Superficial urethritis, with acute exacerbation of four months' standing. Local treatment for two months. Recovery.

A. Aged twenty-two, carpenter. When eighteen years old contracted gonorrhœa; three years later, his second gonorrhœa, which, after two months, left a gleet, which, several months later, was complicated by an epididymitis and rheumatic pains in both femora. The gleet continued one year later in spite of all treatment. May, 1872, commenced treatment. Bougie No. 16 passed

easily. Posterior half of the urethra was found to be diffusely reddened and dull. Sulphate of copper was applied twice a week. The discharge stopped after three weeks. In five weeks the redness visibly diminished and the rheumatic pains stopped. After two months the patient was discharged, cured.

The treatment of superficial urethritis continues usually two months, and consists in the local application of sulphate of copper alone, or accompanied by injections of sulphate of zinc. The diet is only restricted against too much beer or liquor.

Fürstenheim describes a superficial urethritis with one or several reddened patches, with healthy membrane between them. He found this after excessive use of tobacco, excessive venery and inappropriate injections, and they disappeared only when the cause was withdrawn.

II. THE PARENCHYMATOUS OR HYPERPLASTIC LOCAL URETHRITIS.

This is, in most cases, a consequence of an acute, virulent gonorrhœa, but may [1] set in without an acute initial stage, and thus, from the first, appear as a gleet. Inflammation from the first is more limited than in the preceding variety, and we most frequently find it in the bulbo-membranous portion, to the extent of one to two, and rarely five, centimetres in length. The mucous membrane is deeply reddened, velvety, swollen, and rather sharply defined from the surrounding parts. The diseased part is tender and swollen, and consequently the canal is a little retracted. The swelling is caused thereby, and is not limited to the mucous membrane, but reaches the submucous tissue, which here is a kind of cavernous tissue, with only smaller cavities than are found in the corpora cavernosa, or the spongiosum.

We usually succeed in the course of one or two weeks, by means of bougies Nos. 10 to 18, in dilating the constricted part so that the endoscopic tube will pass through. Under the local treatment the redness and swelling will disappear, so that after a time the tube will pass without resistance.

As to the frequency and the portion of the urethral canal affected by this form, Fürstenheim's and my own experience differ from Desormeaux's. Desormeaux saw this variety much more rarely than the granular, and he is of the opinion that both of these varieties exist only in one portion of the urethra at one time, and this always in the posterior part. Fürstenheim and myself consider this variety as more common than the granular, and we have often found it in two different parts of the urethra at the same time. I have seen several times, besides the membranous portion, a part of the urethra just behind the fossa navicularis anterior affected simultaneously.

This variety may lead to stricture, and it is a well known fact that strictures are found most frequently in the posterior portion, but may also appear in the anterior portion of the urethra. The treatment is here the same as in the foregoing variety, but requires a longer time.

Case V. Parenchymatous urethritis of three months' standing. Local treatment for three months. Recovery.

N. Aged twenty-three, officer in the army, pale, but strongly built, came under treatment November 5, 1871. In the winter of 1869 had an acute gonorrhœa, which lasted four months. August, 1871, had another gonorrhœa, which, after seven weeks' treatment, left a gleet—blennorrhœa—that has continued ever since. Now, bougie No. 8 showed a stricture and a tender place in the membranous portion. After ten days of bougie treatment, No. 18 passed readily. The endoscope showed that the mucous membrane in the bulbo-membranous part was swollen, red and velvety. This part was touched with sulphate of copper twice weekly. A month later, had an epididymitis, which lasted fourteen days, during which time local treatment was suspended. After three months' treatment the discharge ceased, the mucous membrane became smooth, less sensitive and paler, and a specimen of the mucus removed from the spot contained only epithelial cells. A year later there was no relapse. Another case of this variety will be reported under the head of "Gonorrhœal Rheumatism." [1]

This parenchymatous urethritis is more persistent than the previous variety, and the treatment lasts from three to six months.

According to Fürstenheim, stricture follows this variety as frequently as Desormeaux's granular urethritis.

DR. HINDE'S CASE.

Case VI. Parenchymatous Urethritis.

J. C., aged 19, variously employed, healthy, male, had first gonorrhœa, three years ago, for which he commenced treatment, but discontinued the same, and the discharge lasted ten to eleven months. During the gonorrhœa he had a bubo, which suppurated and discharged, and six weeks later the wound closed. Soon after the bubo disappeared the discharge ceased spontaneously. One year and a half ago contracted second gonorrhœa, for which he used injections, and was cured six weeks later.

1 Tarnowsky.

1 See also Dr Hinde's Case.

During the second week of November, 1879, he suffered from his third gonorrhœa; commenced treatment after two weeks, using the same injection as cured previous attack, and began to improve, but after using one bottle he lost the prescription and changed to another, which failed to cure. He now used other injections and took internal treatment for two months, with like results. The discharge continued, and about March 1, 1880, he presented himself for treatment. At this date he suffered from a thin, gleety discharge, with constrictions of the urethra at two places. Steel sounds were employed weekly, which produced pain on their passage. Injections of fluid extract hydrastis canadensis (one to eight) were used three times daily. He continued under the above for six weeks with no apparent benefit, but at this period suffered from epididymitis and swelled testicle. These complications now received attention, with complete suspension of foregoing treatment for the gleet. The swelling of the testicle passed off in about two weeks.

On May 1 an examination was made of the urethra per endoscope, and a general injection of the canal in its entire length was noticed. At two points, viz., the bulbo-membranous junction and at a place situated at about one inch from the meatus urinarius, there was slight contraction, thickening of the mucous membrane, marked redness and a dull, velvety appearance. The posterior diseased patch commenced at a distance of six inches from the meatus urinarius and extended forward one and a half inches; the other diseased portion was found one inch and three-fourths from the meatus, and reached forward three-fourths of an inch. There was an abundant muco-purulent discharge throughout the urethra, which under the microscope showed numerous pus cells. This discharge was most marked at the above two patches. He complained of pain on passing the instrument, and the latter detected two constricted portions situated at the above described patches. An application through the tube, after swabbing the urethra with dry cotton, of the solid sulphate of copper was now made to the diseased portion, and an injection of hydrastis canadensis was ordered, to be used three times daily, and he was asked to return for local treatment every third day. Beer, coffee and coitus were interdicted.

During May he made an irregular attendance of six times, and at the end of this period the discharge had markedly lessened. During the first two weeks of June he appeared three times, when the discharge ceased, after which he failed to come, but continued to use the injection for two weeks, when the discharge returned and he once more appeared.

July 1. After two or three applications, the discharge again ceased, and after a week's stoppage without local treatment, it again recurred. This recurrence, however, consisted in a more copious and more purulent discharge than was present at the commencement of treatment. The patient, upon being closely questioned, stated that a day or two before he had been sexually excited, but had avoided coitus.

August 1. The discharge has rapidly subsided, so that there is now no staining of the shirt but still noticeable is the gluing together of the meatus each morning.

The injection was now changed to one of fluid extract hydrastis canadensis and dilute liquor plumbi subacetatis.

The visual endoscopic examination, August 1, revealed the innermost patch much less injected, less velvety and less swollen. The anterior patch, greatly lessened, is the paler of the two, but singularly enough, is covered with a greater quantity of discharge. He experiences slight pain when the tube is passed over the second patch only.

August 10. No discharge at meatus visible, but the patient states that the latter is glued together each morning. Up to this date no regularity of application has been carried out, but about six times per month has been the attendance. At this date was ascertained the fact that the patient has been in the habit of evacuating the contents of his bladder immediately after each treatment. He was now asked to urinate before appearing for treatment and to come at shorter intervals and more regularly. For three or four times he appeared at intervals of two days and continued his injections regularly. At this time he made more marked improvement than at any previous period of his treatment. He said he felt much better; the gluing of the meatus passed away; the endoscopic tube passed more easily and ceased to cause pain, and the application of the caustic became less and less noticeable to the sensations of the patient.

Under date of September 13, my notes show that the discharge has been stopped for three weeks. Endoscopic examination disclosed no constriction of the canal nor pain on passing the tube; the patches have disappeared and the mucous membrane is pale and reflecting. A very scanty discharge is with difficulty removed from the mucous membrane by means of a probe, and the same, on examination under the microscope, is found to contain no pus cells, but only epithelial cells in various stages of development, from a nucleus to a fully-formed cell.

September 19. Still no discharge; treatment continued; no pus cells on microscopic examination of mucus covering membrane; confesses to coition twice since last date.

October 5th. No discharge and patient feels "first-class."

In closing I may mention that there is but slight pain produced on the application of the caustic, and this lasts but a few minutes.

I have found it necessary, after marking out the diseased portions at the first sitting, to make a visual examination of the urethra once in two weeks only. In the early part of the treatment, on the morning after each application the discharge was increased, but on each succeeding day it steadily lessened, up to the following application.

Doctor R. H. Bartlett and myself have several cases of gleet progressing favorably under the above treatment, which will be reported at a subsequent date.

III. GRANULAR URETHRITIS.

This variety has the same situation as the preceding, from which it does not differ essentially, either in its course or its sequelæ.

When the ophthalmologists, in an organ so easily examined as the eye, can see and examine the granulations and inflammations with such differences as we find they do in the literature of recent years, it is little to be wondered at that the granular urethritis has not been more distinctly aud clearly described. This deficiency in our knowledge of the true anatomical character of the disease is of a more scientific than practical value, on account of the diagnosis being easy and the treatment of the different varieties identical.

We find in the posterior part of the urethra, the bulbo-membranous part, or, anteriorly, immediately behind the fossa navicularis anterior, a portion, of from one to three centimetres in length, where the bougie is impeded, and where it produces some pain, and where the endoscope shows us one of the following varieties of granulations:

(*a*) *Small, dark-red granulations.*

Upon the injected, swollen, velvety mucous membrane we see numerous very small, point-like, protruding, dark-red projections. Usually they do not bleed when the tube is inserted, or when they are touched with sulphate of copper.

(*b*) *Large, round, red granulations.*

The diseased surface looks like the granulating surface of a wound, with lighter or darker red, round and soft granulations from the size of a pin's head to a millet seed. They bleed readily, even on the slightest touch. They are situated either close to each other or more widely spread over the granulating surface. Desormeaux describes the color either as a lightish or a darker red.

Most likely there is only a slight difference in degree between the hyperplastic urethritis and the two last named varieties of granulations, because these varieties can be seen to be present in one and the same urethra.

(*c*) *Small gray or yellowish-gray granulations.*

These have the same appearance as the acute granulations in the conjunctiva palpebrarum, but are rarely met with in the urethra. Desormeaux and Tarnowsky regard them as the least frequent variety. It is at present undecided whether they are a separate variety, or merely a stage of development between the hyperplastic and the other granular varieties.

The granular urethritis, whether it shows itself in one or the other of the above named varieties, is similar to one and the same disease of the conjunctiva, in so far that in the course of months or years it destroys the mucous membrane, which is transformed into cicatricial tissue, and results in stricture, the firmness and narrowness of which is greater in the same proportion, as the inflammation has passed beyond the mucous membrane and involved the surrounding cavernous tissue. This termination of the granular urethritis Tarnowsky has been able to follow directly in the external orifice of the urethra in prostitutes, of whom he has had charge for years in his hospital. He noticed that in the course of a year or more the granulations became paler, and the wall of the urethra hard or cicatricial, and the orifice retracted.

On the other hand, Desormeaux has seen granular urethritis exist for ten and in one case, for forty years without resulting in stricture, and similarly have we seen ocular granulations exist for many years without causing entropion.

But what termination a case of granular urethritis will take; how soon a stricture will be formed, we cannot decide as yet, and for this reason alone it is important, even if the disease does not involve other dangers for the patient, as acute exacerbations, epididymitis, gonorrhœal rheumatism, infection of healthy women by coitus, et cetera, to try to cure the disease by every means in our power. It is then a local treatment in these cases that is indispensable and our main stay, though it needs to be supplemented by the commoner methods, diet, etc.

The necessity of local treatment was recognized before the invention of the endoscope, and Lallemand's porte-caustique drew forth a marked show of attention. As there is al-

most always some constriction, the endoscope cannot be used until dilatation per bougie every one or two days for a period of one to two weeks will permit the tube to be passed.

If the granulating surface is too resistant, Cruise introduces the tube as far as the seat of stricture, and then cauterizes until the swelling has subsided by degrees, commencing at the most external or anterior point. By this method, longer time is needed for the complete application to the diseased surface, than by bougie dilatation from the very commencement. Sometimes the meatus urinarius is normally narrow, in which case Fürstenheim dilates with the knife. As soon as we make application to the entire diseased surface per endoscope, we commence the use of local astringents. Desormeaux brushes every second or fourth day with a solution of nitrate of silver, one to one, or one to three. He holds that nitrate of silver in substance acts too strongly, except on fungous, easily-bleeding and old granulations. He gives a warm bath after each application, and between applications the patient uses weak injections of sulphate of zinc. As far as the diet is concerned, he only prohibits the use of beer and coffee. Tarnowsky uses a weaker solution of nitrate of silver, one to twelve, every two days, but besides this he cauterizes with sulphate of copper or nitrate of silver in substance. Cruise brushes with nitrate of silver every four or five days, sometimes interrupted by the application of the solid nitrate of silver. For the use of the latter he takes an applicator or stylet, the outer end of which he coats with fused nitrate of silver. Fürstenheim brushes with a weaker solution of nitrate of silver, but uses the sound more frequently, viz., every day, and allows the patient himself to use injections of cold water, and take cold sitz baths. I have generally applied the solid sulphate of copper every two or three days. The pain with this application is very slight and not to compare with the same application to the conjunctiva. On one occasion I lost a piece of sulphate of copper in the urethra, and it was evacuated some minutes later on urinating, without having caused any noticeable irritation.

Less frequently I have used diluted nitrate of silver, viz., the mixture of pure crystals and the chloride of silver, which makes a good, firm, infriable mass. It acts much more strongly than the sulphate of copper, and causes, especially in the more superficial forms of the inflammation, symptoms of irritation with augmented discharge, but on the soft, easily bleeding granulations it is quicker and better than the copper.[1] Generally we have our patients use weak injections of sulphate of zinc. Any particular diet cannot be enforced, because the treatment extends over too long a period. I usually permit a little coffee and claret, but no whiskey nor beer; besides they need good nourishing food, and iron if anæmic, and only very rarely, when there is an acute exacerbation of the urethritis, a little copaiba is permissible. Cold baths in summer and sitz baths will be found accessory.

1. See Case VIII.

The duration of the disease under this treatment is variable. Desormeaux claims to cure all these cases during a treatment of two to three years. The remaining authors claim to cure somewhat more quickly. and according to their and my own experience a cure may be effected in from two to six months. A treatment extending over so long a period and requiring so frequent applications would be a source of great labor to the practicing physician if it were necessary upon each application to explore and visually examine the diseased portion of the urethra; but this is now unnecessary, as an improvement on my instrument has been recently invented by Dr. Alfred Hinde,[1] of this city, which consists of a graduation of the tube in inches or centimetres, commencing from the inner end and situated on the external surface of the instrument. By this improvement, at the first sitting, after a careful inspection, the diseased portion can be mapped out in inches or centimetres from the meatus, thus rendering a visual examination necessary once in two weeks only. Consequently, for the daily application, we have only to introduce the tube to the inner extremity of the diseased portion, withdraw the plug, introduce the applicator just beyond the tube, slowly withdraw both simultaneously, until we reach the outer extremity of the diseased portion. We now withdraw the applicator within the tube, and thus protect the normal mucous membrane from the caustic, and remove both at leisure. It is unnecessary to state that upon the withdrawal, the walls of the urethra fall together as the instrument retreats, and in so doing grasp the solid caustic that extends beyond the tube and thus receive a thorough application.

Concerning the question of permitting coitus during treatment, Tarnowsky differs from authors generally in permitting moderate and regular cohabitation, but not promiscuously. Ordinary sexual excitement tends to prolong or continue the inflammatory condition of the urethra upon which the gleet depends, even if the exacerbation of the latter be not produced, which latter is a frequent result in our experience. Another im-

1 Dr. Hinde's instrument was made by Mr. R. M. Johnson, manufacturing jeweler, 229 W. Madison Street, corner of Peoria Street, and cost, together with the applicator and forceps, $6.00.

portant reason for prohibiting sexual intercourse is the danger to which the second person is exposed of catching either an acute gonorrhœa or a gleet from the commencement, dependent upon the granular inflammation of the os uteri.

We consider it the duty of every physician to warn his patient against every act that is likely to prolong the disease, or interfere with the progress of treatment, especially mentioning coitus. Even sexual excitement without coitus, noticed in Dr. Hinde's case as being sufficient to excite an exacerbation which might nullify several weeks of previous treatment, should be strictly forbidden. That a perfect recovery has taken place, and we may safely stop the treatment is shown, not by the apparent cessation of the discharge, because this frequently fails to reach the meatus when in small quantity, even whilst granulations exist, yet on internal examination, there is a slight whitish covering over the diseased portion of the mucous membrane. But perfect recovery is warranted:

a. When the swelling has entirely disappeared; when on introducing the tube, no resistance in the diseased portion is noticeable.

b. When the mucous membrane now is smooth and reflecting and has lost its previous velvety appearance.

c. When the mucous matter from the formerly diseased part after the removal upon a probe, et cetera, is shown under the microscope to contain no pus cells, but only partially or fully developed epithelial cells which are readily recognized by their large, sharply defined, oval nuclei. A slight redness may still continue for some time, and Desormeaux advises the continuance of urethral injections for some time.

IV. THE HERPETIC URETHRITIS.

The herpetic phlyctenular urethritis is a benignant and superficial form of inflammation, is rarely seen, but when found is most frequently met with in pale, scrofulous adolescents. Slightly irritable symptoms are alone complained of, and through the endoscope we notice small red and flattened spots irregularly spread through the canal, or yellowish round erosions with a reddened areola. Also, simultaneously, we frequently find patients suffering from herpes preputialis. No constriction or tenderness is perceived on the introduction of bougie or tube. The disease is cured either by dieting, with mild injections, or after a few, mild, local applications.

V. CONDYLOMATA

Are rarely seen, and extend only to a few lines within the external orifice, and very rarely are they found in the deeper portions of the urethra.

VI. POLYPI

Are also very rarely met with. They may be single or multiple. Tarnowsky has two diagrams of multiple polypi in the prostatic portion.

VII. PRIMARY SYPHILITIC ULCERS

Will almost always be found within the fossa navicularis anterior, and will never present any difficulties of diagnosis.

VIII. SECONDARY SYPHILITIC SYMPTOMS

Are very rarely met with in the urethra. Tarnowsky found during a post mortem examination on a child aged three years, scattered mucous patches in the urethra and bladder.

The divisions V, VI, VII, and VIII, we shall not discuss, as they are foreign to our subject.

Before entering upon the subject of gonorrhœal rheumatism, we may state respecting endoscopy, that we do not wish it to be understood that we desire to do away with the usual methods of treatment in simple cases of gonorrhœa, but desire to recommend the local treatment in those cases that fail of cure by the ordinary methods, and in so doing we merely endorse the opinions of the most experienced endoscopists.

III.—GONORRHŒAL RHEUMATISM.

Ever since Montiggia, at the close of the last century, pointed out the connection between gonorrhœa and rheumatism, and proved gonorrhœal rheumatism to be a distinct form of rheumatic disease, there has been a dispute as to whether there is any relationship between the two diseases.

Those who oppose the idea of relationship between the two diseases have always been in a minority, and even if we find such names as Thiry and Tarnowsky amongst them, we must admit that the said relationship is now generally established.

Fortunately it is a rare complication of gonorrhœa, and it is this infrequency that proves the foundation of the main argument against it. The opposition claim that the two to four per cent. of rheumatism found as a complication of gonorrhœa is no greater than the percentage of rheumatic cases found in adult males in general. Yet when we, by close observation, examine the development and course of the disease, we find a marked connection between the two. Thus we always find in persons suffering from gonorrhœal rheumatism that the occasional causes, whether the disease is present for the first time or as a recurrent attack, are always either an acute gonorrhœa or an exacerbation of gleet, and, on the other hand, the atmospheric and

telluric conditions, that play so conspicuous a role in the ordinary rheumatism, are hardly ever mentioned by these patients.

This rheumatism, like the other variety, has its acute and chronic form, and it complicates or accompanies both the acute and chronic gonorrhœa, but it is found most frequently associated with the latter.

The situation of the chronic urethritis is so far important that it seems to be a necessary condition for the development of the rheumatism that the posterior, the bulbo-membranous part of the urethra should be affected. Believing this, Ricord[1] and R. Bergh[2] claim to have prevented, by means of abortive injections, attacks of the disease in patients liable to gonorrhœal rheumatism at each new invasion of gonorrhœa. These authors claim that they prevent the rheumatism by limiting the urethritis to the anterior portion of the canal.

Experience has shown that catheterization of the sound urethra has caused rheumatic inflammation of the joints, and we can hardly imagine that other portions of the urethra can be damaged by the use of the catheter. Further, the gonorrhœa always precedes the rheumatism, the shortest time being eight to ten days, and often months will elapse before the onset, at which time the inflammation will have reached the posterior part of the canal. Again, the rheumatism most frequently accompanies the gleet (Melchior Robert), the seat of which is always the posterior part of the urethra.

Brandes[3] found in sixty-five cases of gonorrhœal rheumatism, gleet in fifty-one, an acute gonorrhœa in seven, and in seven cases it was impossible to ascertain whether the rheumatism had originated in an acute or chronic gonorrhœa. In two out of the fifty-one he found stricture, and in five cases, on digital pressure over the bulbic portion of the urethra, he detected a tender spot.

As far as the importance of the local chronic urethritis in the causation of rheumatism is concerned, Brandes has already pointed out that the local tenderness which is most frequently found five inches behind the meatus urinarius—consequently our parenchymatous and granular urethritis in the bulbo-membranous portion—will be apt to cause, after the discharge is stopped and the rheumatism cured, an exacerbation of the discharge without any new infection, and a subsequent attack of rheumatism due to excesses in drinking or venery. He relates a case in which all other remedies having been tried in vain for the cure of the rheumatism, recovery took place after cauterization with Lallemand's porte-caustique. The experience of more recent authors points in the same direction. R. Bergh tells us that the rheumatism most frequently appears during an exacerbation of the gleet. Ziessl[1] says that the rheumatism most frequently does not show itself until the gonorrhœa has become chronic, and that the chronic as well as the acute gonorrhœal rheumatism will not disappear until the last traces of the gonorrhœa have disappeared.

Following the suggestions of the foregoing authors, we tried the local treatment of the urethritis as accessory to the treatment of the gonorrhœal rheumatism in the two following cases:

Case VII. Synopsis. Poly-articular gonorrhœal rheumatism, accompanying the fifth gonorrhœa. Three exacerbations in the course os two years, iritis, chronic parenchymatous urethritis in two places of the urethra. Local treatment for six months. Perfect recovery.

O. Aged thirty, sea captain, came under treatment February, 1872. In his early years he had never suffered from rheumatism. From 1867 to 1870 he had four attacks of gonorrhœa. In February, 1870, when in Singapore, which we would have it understood is in the tropics, where rheumatism is very rare, he had his fifth gonorrhœa. After the discharge had lasted a couple of days he began to suffer from pain, redness and swelling of both ankle joints; the discharge stopped, but the pain and swelling in the joints increased. Three weeks later he visited a physician, who prescribed iodine locally and a mixture internally. In September he visited France, and the pain in the joints increased. In November he reached Copenhagen and entered the city hospital, and for three weeks was treated with steam baths, under which he partially recovered and went home, but continued the baths during the winter. In May, 1871, he could walk by means of a cane without much pain. Shortly afterward he had his sixth gonorrhœa. The discharge ceased under copaiba and cubebs, in ten to twelve days. Soon after he suffered from pain in both ankle joints, left knee, right shoulder joint and right metacarpo-phalangeal articulation of index finger. He entered the Royal Hospital and was treated with steam baths, potassii iodidum, together with other internal remedies. He left the hospital three months later without any improvement. The following four months he improved some-

1 Melchior Robert: Nouveau traite des maladies veneriennes. Paris, 1861. p. 246.

2 Bidrag til Kundskab om Gonorre hos Mandfolk. Koebenhavn, 1860. p. 116, o. f.

3 De rheumatismo gonorrhoico, in universum, et de forma ejus acuta. Hauniæ, 1848.

1 Lehrbuch der Syphilis, Erlangen, 1871, p. 134.

what, so that he could walk round with a cane for an hour at a time. January, 1872, the scant discharge became more copious, without any apparent cause, and a couple of days later the pain and swelling in the ankle joints increased so that he could not walk at all. Eight days later, pain and swelling set in in the metacarpo-phalangeal joints of the first, second, third and fourth fingers of the right hand, and the first and second fingers of the left hand.

In February, 1872, he came under the local treatment. On the first examination, bougie No. 11 would pass, but there was resistance and tenderness in two places, viz., behind the fossa navicularis anterior, and in the bulbic portion. In the course of a fortnight, bougie No. 18 would pass. The endoscopic examination then showed, behind the fossa navicularis anterior, a part of the urethra two centimetres in length, with the mucous membrane swollen, dark-red and velvety, and covered with a little, whitish, puriform discharge. Behind this place the mucous membrane was healthy until the bulbo-membranous portion was reached, where a similar patch, of from two to three centimetres in length was found.

The treatment consisted of steam baths and the local application of sulphate of copper every two days. During the first micturition succeeding the first application he felt some slight pain, and the next morning there was a drop of matter in the meatus urinarius, but on the second morning there was none. After the eighth application an increased swelling and tenderness was noticed in the anterior portion, and on this account the application was stopped and bougies were resorted to from Nos. 12 to 16, which latter, in the course of two weeks, could be passed without pain. The local treatment was then continued for three months, every second day, in the course of which time the condition of the joints became slowly ameliorated.

In May he had an iritis of the right eye, which subsided in four weeks under the usual treatment. At the end of June there was only left stiffness in the ankle joints, and in the right second and fourth, and the left first and second metacarpo-phalangeal joints. It was somewhat difficult for him to walk, on account of the stiffness of the ankle joints, but there was no pain in them. He became easily tired, and then he felt pain in the planta pedis. In July and August he used cold sea baths and local treatment to urethra twice a week, as the above-named patches in the urethral canal still continued to be reddish and some pus cells were still present on their surfaces. In September the mucous membrane of the urethra was natural throughout, and the mucus contained only epithelial cells; and the patient could now walk around the whole day and supervise the tackling of his vessel.

One year later: Has been married six months, and has had no rheumatism nor any urethral trouble since his recovery. In this case, consequently, the complete recovery lasted for one year, and the patient, who for two years was entirely out of employment, now is able to pursue his daily work.

Case VIII. Polyarticular gonorrhœal rheumatism, commenced in a nine-months old gonorrhœa. Yearly exacerbation of the rheumatism for twenty years. Iritides on both sides repeatedly. Chronic rheumatism for twenty years. Granular urethritis in bulbo-membranous part. Parenchymatous urethritis behind the fossa navicularis anterior. Local treatment of the urethra for four months. Perfect cure of the urethra. Considerable improvement of the rheumatism, without any later exacerbation of the same.

K. Aged fifty, carpenter, weak and anæmic, early history free from rheumatism. In his twenty-second year (1845) contracted his first gonorrhœa, which, in spite of treatment by injections, and cubebs internally for three months, did not subside, but continued as a gleet, which, from time to time, was accompanied by an ardor urinæ. Nine months after the first appearance of the gonorrhœa he had pain in both knee joints, which subsided in two weeks. Two years later he acquired another acute gonorrhœa, which left a scanty chronic discharge, which has lasted ever since, with exacerbations from time to time.

The knee joints again became painful and swollen, and in the following twenty years he had, almost every year, had attacks of rheumatism, commencing in the knee, extending later to the ankle joints. These exacerbations came on at variable times each year, and entirely independent of cold or inclement weather, but always subsequent to an exacerbation of the urethritis, which most frequently appeared four to eight days previous to the rheumatism. From 1851 to 1863 he was married and did not expose himself to any new infection, but had, nevertheless, frequent attacks of the disease. Eleven years ago, during a rheumatic attack, he had double iritis, new attacks of which set in with each yearly attack of the rheumatism, resulting finally in synechiæ, with opacity covering the pupillar field, on which account iridectomy was performed nine years ago in the right, and two years ago in the left eye.

August 12, 1871, he entered the City Hospital. On admission there was a considerable painless effusion in the right knee joint,

and pain and swelling in both ankle joints. From the meatus urinarius a scanty, white discharge could be pressed out. For three months the usual anti-rheumatic and anti-gonorrhœal treatments were used without any relief.

October 15. Bougie No. 13 was passed, and was resisted and caused pain behind the fossa navicularis anterior and at the bulbic portion. On succeeding days we introduced higher numbers, causing, at times slight hæmorrhage, and finally, October 29, were enabled to make an endoscopic examination. In the bulbo-membranous portion we found a patch two centimetres in length, in which the mucous membrane was swollen and covered with round, or oval, dark-red, easily-bleeding granulations, of the size of a pin's head. Just behind the fossa navicularis anterior was a patch one centimetre in length, in which the mucous membrane was dark-red, bled easily, and was velvety, but had no whitish granulations. The residuum of the urethral mucous membrane was normal.

The diseased patches were treated every second day with sulphate of copper, which frequently caused a slight hæmorrhage, and during the subsequent five or six hours the discharge of a thin serous fluid.

November 1. The urethral discharge is diminished.

November 4. The rheumatic pains more marked.

November 10. Discharge very scant, swelling of the diseased portion somewhat diminished, no bleeding from posterior patch, but some from the anterior patch.

November 30. Redness of patches diminished and mucous membrane smoother; a piece of the sulphate of copper broke off from the applicator and remained in the posterior part of the urethra until evacuated on the next micturition. He felt a little pain afterward in the anterior part of the urethra, but no further signs of irritation. The condition of the joints is slowly improving.

January 1, 1872. The patches still smoother, but yet dark red. The anterior patch is now so soft that there is no resistance on the passage of the endoscope. The sulphate of copper was now stopped and dilute nitrate of silver was used every three days.

January 5. For twenty-four hours after the application, there has been pain on micturition, but no increase in the discharge.

January 20. The mucous membrane and patches are now smooth and not swollen, but still darker red than natural; no discharge in any part of the urethra; the swelling in the knee and ankle joints has subsided, and there is only a slight stiffness left.

January 24. Left the hospital.

During the subsequent four weeks applications of the sulphate of copper were made, whereupon the redness of the patches subsided and the mucous membrane of the urethra became generally healthy. The following four months he was quite well, except a little stiffness of the joints, and was able to attend to his business.

In such an inveterate case of rheumatism in an old and anæmic individual, we could not expect a more complete recovery, and it is already a great advantage that no subsequent exacerbations set in. It is natural to conclude that this favorable termination was due to the cure of the granular urethritis more than to the anti-rheumatic treatment, yet we should not advise entire reliance upon the one without resorting to the other. We will have to combat the rheumatism by every means in our power, but we hold that the chronic local urethritis has been and still is too little noticed in the treatment of gonorrhœal rheumatism, and we claim that the proper treatment and cure of the urethritis is a conditio sine qua non for the complete recovery from the rheumatism.

IN MEMORIAM.

Doctor Frank Howard Davis.

FROM THE CHICAGO MEDICAL SOCIETY.

Dr. Frank Howard Davis was born in the city of New York, in 1848. He began the study of medicine in 1867, at the Chicago Medical College, and was graduated in 1871. At the same college he received the prize for the best thesis presented to the faculty by the class of that year.

In order to prepare himself more thoroughly for the duties of his chosen profession, he spent several years in study abroad, dividing his time between London, Paris and Vienna, aud devoting himself specially to the study and practice of laryngoscopy. That he was studious and active in his profession, is evident from the number of appointments with which he was favored.

He was treasurer of the Chicago Medical Society; he was secretary of the Association of American Editors, also secretary of the American Laryngological Association. He was an active member of the American Medical Association, the Illinois State Medical Society, and the Alumni Association of the Chicago Medical College. He was also an active member of the Chicago Academy of Sciences, of which he was also librarian at the time of his death. The doctor wrote a number of articles, which have appeared in different medical journals, and which have also

been published in the transactions of the associations with which he was connected. Among the more important were probably his inaugural thesis, "Atmospheric Germs and their Relation to Disease," (Chicago Medical Examiner, Vol. 12, No. 4.); "Some Facts regarding the Relations existing between the Prevalence of Pulmonary Tuberculosis and Hygienic Surroundings of the People," (American Medical Association Transactions, 1878, p. 147.); "A study of nine hundred and sixty-five cases of Chronic Pulmonary Disease," (American Medical Association 1877, p. 269.); Clinical Lecture on Various Important Diseases, by Dr. N. S. Davis, edited by Frank H. Davis, (H. C. Lea, Philadelphia.); "Inhalations in Pulmonary Diseases," (Transactions Illinois State Medical Society, 1880).

The doctor, in 1875, was united in marriage to Miss Anna Smith Marcy, daughter of Prof. Oliver Marcy, of the Northwestern University. This marriage was blessed with two children, a son and a daughter, who with their mother now mourn the loss of a most devoted husband and affectionate father.

Few young men had the opportunities of preparing themselves for the arduous and responsible duties of life that the doctor enjoyed, and no one ever employed them to greater advantage.

The chief cause of death was "suppurative inflammation of the left kidney," accompanied by so persistent a reflex irritation of the stomach, that during the last few weeks of life his sole dependence for support was on nutritious enemas.

The doctor had the highest regard for professional honor, but those only who knew him intimately could appreciate fully his kind, sensitive nature.

WHEREAS, The Chicago Medical Society has heard, with great regret, of the death of Frank Howard Davis, long a member and officer of this society;

Resolved, That the Chicago Medical Society is called upon to mourn the loss of an active, efficient member and officer, who was ever faithful in the discharge of his duties.

Resolved, That as a tribute of respect to his memory, we wish to place upon our records our appreciation of his character, and of his service to the society and the profession.

Resolved, That while we fully realize our own loss, we would extend our most heartfelt sympathy and condolence to his afflicted family, and particularly his bereaved father, to whom we are all personally greatly attached.

Resolved, That a copy of these resolutions of respect and condolence be sent to his family and also to the city medical journals and daily press, for publication.

CORRESPONDENCE.

VIENNA LETTER.

UNIVERSITY OF VIENNA — MEDICAL FACULTY—HEBRA — VON SIGMUND — SOCIETY OF PHYSICIANS — BILLROTH'S CLINIC, OPERATION FOR GOITRE, ANTISEPTIC METHOD — ROKITANSKY'S CURE FOR CONSUMPTION — SAYRE'S PLASTER JACKET—ENGLISH SURGERY — PORRO OPERATION.

VIENNA, OCTOBER 12, 1880.

Your invitation to begin a correspondence from Vienna is not an easy one to comply with, for it is difficult to determine what part of our medical news will be the most interesting to your readers.

The interest taken by American physicians in general in our university and its medical faculty induces me to begin with a few words concerning it. Our medical session opened yesterday under somewhat unfortunate auspices. Hebra is dead; Sigmund has retired from active work. Hebra was one of the most "international" stars of our faculty, well known and justly so on both sides of the Atlantic. When he began his work as an investigator he was far ahead of his time, and his classification of cutaneous diseases, based on pathological anatomy, has served as a firm foundation for modern histological research.

As a physician Hebra displayed an unparalleled originality. Without hesitation, he stated the entire truth to the patient and his friends, however severe it might be; but he did it in such a friendly, cordial way that no one could take offense. Moreover, his diagnosis was so positive and his therapeutic experience so unique that in point of success he was outranked by none.

Hebra has had many pupils, who, in respect of thorough, practical knowledge, are fit disciples of so great a master. The most prominent of these is probably his present substitute and probable successor, Kaposi, who is a worthy representative of Hebra's school and an excellent teacher. Among other representatives of his school in Vienna are Auspitz, Isidor Neumann and the younger Hebra. Hebra's relations with his foreign colleagues were of the most intimate nature and many American physicians do doubt retain pleasant recollections of him.

Our second loss is that of Professor von Sigmund, the syphilographer, who has availed himself in his seventieth year of the privilege of retirement. Sigmund was a very popular physician. As a teacher, he exerted himself to the utmost to make his lectures entertaining, as well as instructive, and hence, they often assumed the character of a pleasant

chat, enlivened by well-told anecdotes and personal reminiscences. Professor Zeissl, at present the extraordinary professor of that chair, will probably succeed him.

The attendance of foreign and native students at present promises to be very large. Among the most popular courses are the clinics of Braun, Billroth, Bamberger, Widerhofer and Schrötter, the private courses of Stoerck, Wölfler and Miculicz, and the Policlinik, or dispensary, which offers to the students an immense amount of material, although the instructors are less prominent.

As soon as the sessions of our medical societies begin, medical news will be more plentiful. The proceedings of the Society of Physicians are of especial interest, and to these I shall refer in subsequent letters. The vacancy in the presidency of the society, caused by Hebra's death, must be filled. Bamberg has already declined; Arlt, the eminent oculist, will probably decline on account of his age, and hence many hope that Billroth will be chairman of our most prominent medical corporation.

Very few American physicians have left Vienna without visiting Billroth's clinic and carrying away with them most pleasant recollections. As Billroth is recognized as the first surgeon in Austria, his clinic is the most influential in Vienna. Billroth has recently performed successfully extirpation of the thyroid gland, in cases of goitre, which are common in Vienna and the surrounding country, and which frequently exceed in size the two fists. He uses strictly antiseptic precautions. In the first forty cases upon which he operated, there was only one death. The main difficulty is to control the hæmorrhage, which he accomplishes by seizing, with two of Péan's forceps, every piece of tissue to be divided, and cutting between them. Formerly hoarseness was a frequent result of the operation; this is now avoided by carefully dissecting out the recurrent laryngeal nerves. Billroth's first assistant, Dr. Wölfler, docent at the university, has just published an exhaustive article on the development of goitre, which contains many important histological and anthropological points.

Billroth's antiseptic method, by the use of which he obtains such eminently satisfactory results, omits the use of the spray. He considers it not only inconvenient to the operator and assistants, but dangerous to the patient, as it may, by excessive cooling, induce collapse. In lieu of this, the wound is irrigated with a five per cent. solution of carbolic acid.

On account of the vacation just passed, there is but little further news worthy of mention. You have, of course, heard of the incredible statements made by Dr. Prokop Rokitansky, of Innsbruck, that phthisis may be cured by inhalations of benzoate of sodium. Little reliance was placed in his statements, but the matter was nevertheless tested by various hospitals here and abroad, but with uniformly negative results. Finally, Rokitansky himself has recanted, and now, Professor Klebs, of Prague, remains the sole adherent to and believer in Rokitansky's doctrine. In consequence of the stand he has taken in this matter, Klebs has been severely criticised and his reputation has suffered.

The treatment of spinal curvature with plaster jackets, according to the method of your excellent countryman, Dr. Sayre, is rapidly becoming very popular here. One of Billroth's assistants, Dr. R. Wittelshöfer, has paid special attention to this subject and has obtained excellent results by the use of Sayre's jacket in Potts' disease, but has not met with as great success in the treatment of spinal curvatures. In the introduction of Sayre's method, Billroth's clinic has, as usual, taken the lead.

The German Congress of Naturalists, which met this year in Danzig, has exerted but little influence on Austrian scientific work, but the International Medical Congress, to be held next year in London, will probably be attended by a number of Austrian savants, since English teaching, especially in surgery, is well received in our country. Thus, Ogston's operation for genu valgum has foun its way to us, and Professor Mosetig has had fair success with it. Billroth, however, prefers osteotomy of the tibia, and in children, the gradual straightening by elastic traction.

In our gynæcological clinics, (Braun and Spaeth), Porro's operation for removal of the uterus has been employed in place of Cæsarean section, and the results have, on the whole, been favorable to mother and child.

So much for to-day. In subsequent letters I shall discuss at length scientific life in Vienna.

W.

Irritable Bladder.—Many cases of irritable bladder not dependent upon phosphatic deposit, may be relieved by the free use, internally, of benzoic acid. The following formula has been used many times with success in cases where direct pressure by an enlarged uterus or a general pelvic congestion alone suggested the cause:

℞ Acidi Benzoici.....3ii
Sodæ Biborat.....3iij
Aq. Cinnamoni.....℥vi

M. Sig. A tablespoonful every two (2) hours till relief.

NEW YORK LETTER.

NEW YORK, NOV. 20, 1880.

THE CARTWRIGHT LECTURES.

The opening of the Cartwright lectures, marks a new departure in medical progress. It will be remembered that Mr. Cartwright, of Newark, N. J., bequeathed to the alumni association of the College of Physicians and Surgeons the sum of ten thousand dollars, a portion of which was to be applied to the foundation of a lectureship similar in character and object to the Lumlian, Gulsonian, and other lecture courses in England. Upon this foundation an annual course of lectures is to be delivered in this city before the alumni association of the college and the profession at large, by some physician of distinction. As announced in a former number of the Review, Dr. Roberts Bartholow, of Philadelphia, was selected by the committee of the association to deliver the first course. He chose for his subject the physiological antagonism between medicines, and between remedies and diseases.

THE BALANCE OF OPPOSING AGENTS.

The first lecture of the course was attended by a large audience of practitioners and students on the evening of November 9, and the reception accorded to Prof. Bartholow was a very cordial one. After a graceful tribute to the generosity of the founder of the lectureship, in which he spoke of the gift as rare and admirable in its provisions, as offering an opportunity for honorable distinction to individual members of the profession, and as replete with benefits to the profession at large. Prof. Bartholow entered upon a historical review of the doctrine of physiological antagonism, or, as he defined it, the balance of opposing agents; tracing the various views regarding this doctrine from the time of Hippocrates to the present day. He compared the existing antagonism in the nervous mechanism of the functions of the heart, arteries, etc., to the antagonistic action of forces in physics, and the action of drugs, and then, proceeding to the first division of his subject, took up the physiological antagonism between opium and belladonna. He had collected 120 recorded cases of opposing action between these drugs, and 15 cases in which such action had been apparently wanting. Taking up the negative cases first, he showed by a careful analysis of each case that the failure in obtaining an antagonistic action was due either to an insufficient or excessive amount of one drug being used, an inefficient method in its administration, or to delay in the use of the antidote, and that therefore the unfavorable result was not to be ascribed to any want of antagonism between the drugs.

ANTAGONISTIC ACTION OF DRUGS.

In the second lecture, which was delivered in the hall of the Y. M. C. A. building, in order to accommodate the large audience which much more than filled the college lecture room, the lecturer proceeded to review the successful cases of antagonistic action between the same drugs. The action of each drug upon every organ of the body was discussed with the care which marks the investigations of Dr. Bartholow, and the result summed up at the close as follows: The action of belladonna and opium is antagonistic upon the heart, respiration, skin, brain, and pupil. It is not antagonistic on the bladder, though each produces dysuria in a different way; opium by paralysing the wall of the bladder, and belladonna by causing a spasm of the sphincter vesicæ. In cases of poisoning by either, the antagonist is to be administered in small doses, frequently repeated, until the antagonistic effects are obtained. The action of the heart and respiration are to be observed as the best indices of a proper antagonism—the state of consciousness and the condition of the pupil are not reliable indications of the degree of action obtained. In a case of opium poisoning, for example, belladonna is to be given in doses equivalent to 1-32 gr. of atropia every fifteen minutes, the indication being to maintain the heart and respiration—until the opium is eliminated. The process of elimination must be favored. As both drugs are eliminated by the kidneys and as it is possible for either drug to be reabsorbed into the circulation through the mucous membrane of the bladder, it is important to excite the action of the kidneys and to wash out the bladder frequently until the toxic effects have passed off; other means of elimination are also to be employed by exciting the skin and intestines. But while elimination is going on, the antagonism of belladonna to opium is to be employed, and any symptoms, e. g., coma, or the conditon of the pupil, are of little importance provided the respiration and circulation are properly maintained. The propriety of combining the drugs in order to produce a desired result from either, was commented upon favorably, as being another practical deduction from the doctrine of antagonism. Both lectures were listened to with interest, and the exhaustive research and careful original investigation involved in their preparation were fully appreciated by the intelligent audience. The remaining lectures of the course, six in number, are looked forward to with the confident expectation that they will prove as instructive to the practitioner and as creditable to

the lecturer as the two already delivered.

PROTECTION OF THE INSANE.

A meeting held Nov. 11, at the Fifth Avenue Hotel, by the National Association for the Protection of the Insane, was largely attended by those interested in the subject of insanity. Dr. Wilbur, of Syracuse, presided, and read some statistics regarding the number of insane in the country. He said that the state of New York alone has 10,500 insane, one-half of whom are in state asylums. Rev. Arthur Brooks, of this city, followed with a forcible argument for the separation of the supervision of the insane and other charities from political influence and interference. Dr. Geo. M. Beard then read the paper of the evening upon insane asylums and their management abroad. It contained an interesting description of the method of management of the insane without forcible or mechanical restraints, pursued in the institutions of Great Britain and Germany. The substitution of some kind of employment for the absolute want of occupation seen in our asylums was strongly urged, and the cottage system of asylums recommended. The superiority of the foreign methods in their practical results was especially noticed, and the advisability of remodeling present existing systems here pointed out. Dr. Seguin read extracts from the letter of a German alienist, upon American asylums, which indicated conclusions similar to those read by Dr. Beard. Dr. Norton described an institution at Clairmont, France, composed of two farms of 1,500 acres each. Each farm had its own mills, shops, barns and stock, and was complete in itself, and all the various kinds of labor was performed by lunatics, with no apparent restraint, and with contentment and perfect accord among them, although they numbered over 900, and came from the lower classes. Such results cannot but contrast favorably with our system. The association voted before adjourning to co-operate with the committee of the Senate of this state, which is investigating the state asylums with a view to some reform in their management. It is understood that certain superintendents of asylums are opposing the work of this committee, and it is probable that the Legislature will be obliged to consider some measure for the protection of the insane in this state. Efforts are being made to revive the bill defeated last winter, which proposes to institute a central state supervision in place of the present irresponsible and isolated superintendence of individuals. There is room for much reform, and it must be preceded by a knowledge of existing evils. The efforts of the national association are therefore to be commended and encouraged.

TREATMENT OF PHTHISIS.

Numerous cases of phthisis are always to be found in the wards of Bellevue hospital, and various plans of treatment are being pursued with a view to ascertain their comparative merits. Some of the results may be of interest to your readers. For the purpose of aiding in the assimilation of food, it is often necessary to use a bitter tonic before meals to excite an appetite, and with that object a teaspoonful of a mixture of Tr. Cinchonæ Comp. and Tr. Gentiani, equal parts, is given. Iron in the form of Tr. Ferri Chloridi is used after meals, and various emulsions of cod liver oil are largely employed. Trommer's extract of malt is found to be of service in many cases. The cough is probably the most distressing symptom, and requires constant treatment. In some cases it is harsh, and expectoration difficult, and the indication is chiefly to allay the irritation in the bronchi and trachea. This is done by the use of hydrocyanic acid, combined with bromide of potash and given in syrup pruni. virgin. or by mixing equal parts of cyanide of potash and sulphate of morphia in syrup of tolu in such proportion that a drachm of the syrup shall contain 1/8 grain of each of the salts. It is not seldom found that a cough of this character is aggravated by an elongated uvula or by an irritable condition of the pharynx. If so, the pharynx and the uvula may be painted daily with a solution of nitrate of silver, gr. lx. to ʒ j. with the result of allaying the irritation, or the extremity of the uvula may be clipped off with scissors. When laryngeal irritation is the chief factor in the cough, the use of narcotics is indicated, and a favorite mixture is one composed of equal parts of Hoffman's anodyne and U. S. sol. of morphia. This may be given in doses of ʒ j. to ʒ ss., and many patients find it more serviceable than any other combination in arresting the cough at night and inducing sleep. To relieve irritation and excite secretion in a dry catarrh the wine of ipecac. is used in the form of a spray, and with a little care it is possible to apply it to the greater part of the larynx and even to reach the trachea if the atomizer is properly directed, and used during the act of inspiration. All inhalation of powders has been abandoned in favor of the spray. When the cough is loose and expectoration free, those drugs are combined which will lessen the tenacity of the mucus and increase the power of the bronchial muscles. Stoke's expectorant mixture, containing Ammon. Carb., Ext.

Senegæ, Ext. Scillæ and paregoric with syrup tulu is largely used, and a combination of Carbonate of Ammonia, ʒj. with Spts.Chloroformi ʒjv. and Infus.Cascarillæ, ℥j. of which the dose is ʒ ss., has also been of service. Some one of the above cough mixtures is usually employed with success, the indication to be met being ascertained before any selection is attempted.

The night sweats of phthisis are so weakening in their effect that some measures have to be employed to check them. A tepid sponge bath containing alum may be of service when the sweats are beginning, and are not very severe. Sooner or later recourse must be had to some preparation of belladonna, and a simple solution of atropia is as efficacious as any elaborate combination. Of late, nitrite of amyl in doses of three drops given on a lump of sugar has been found useful, and it may be employed without or with a small amount (1-100 gr.) of atropia with good results. In several cases when atropia alone has failed to check the sweating unless given in doses large enough to produce disagreeable effects, it has succeeded when in combination with the nitrite of amyl. In other cases, the amyl alone is all that is needed. Various theories of its action are proposed, but no one is quite satisfactory. The fact of its efficacy is not disputed. The use of alcohol in phthisis has been sufficiently debated in books and journals. In the hospital it is at present freely used in most cases, and, it is thought, with good results. In the treatment of the diarrhœa of phthisis, opium is chiefly relied upon. The deodorized tincture, McMunn's Elixir, or a powder containing 1-6 grain of morphia, and 10 grains of bismuth are used indifferently, though the latter is probably employed in the majority of cases. To control the febrile movement nothing can supersede quinine.

S.

Arterial Transfusion of Blood has been performed ten times by Professor S. P. Kolomnin, (Transactions of the Society of Russian Physicians; abstracted in Medical Record, Nov. 6th, 1880). He injects defibrinated blood into the peripheral end of the radial artery, and claims for the method that it is as simple and as easily performed as venous transfusion, that a greater quantity of blood, from one hundred to two hundred and twenty cubic centimetres, may be injected, that it enters the heart more gradually, and that there is no danger of its obstructing the vessels of internal organs.

REVIEWS.

Handbook of Chemical Physiology and Pathology, with Lectures upon Normal and Abnormal Urine, by Victor C. Vaughan, M.D., Ph.D. Third edition. Ann Arbor Printing and Publishing Company, 1880.

Not quite one year ago the Review published a very favorable review of the second edition of this work. We can add but little more at present. It is a reliable and thorough book, on a most important topic, of which our English literature is peculiarly meagre. The present edition is somewhat enlarged. It contains, however, some omissions which are at the present date more striking than in the previous issue. In the chemistry of the nervous tissue we find no reference to protagon, (which has now a re-established claim) or to Kühne's neuro-keratin. The occurrence of conjugate acids (sulphocarbolic etc.) in the urine is likewise omitted, as well as various other points of minor importance. The chapters on the urine are very satisfactory from the medical standpoint, and moreover, quite thorough, but the precepts are mainly for laboratory work, and the less thorough examination which the physician is usually forced to make in his office, is not sketched as practically as in some smaller works. The plates have been put into the same volume. They are on the whole very practical, except the cut representing casts, which shows them with a misleading distinctness, which they do not generally possess.

The Physiology of Woman, embracing Girlhood, Maternity and Mature Age, with Essays on "Coeducation of the Sexes in Medicine," "The Physiological Basis of Education," "Temperance from a Physician's Point of View," and "A Plea for Moderation." By Sarah Hackett Stevenson, M.D. Chicago: Cushing, Thomas & Co. 1880. $1.50.

This little volume of one hundred and thirty-nine pages, and nearly one hundred more of appendix, is addressed especially to the female sex. It belongs to the class of popular medical works that are not intended especially for the physician, nor yet for general reading. If it contains nothing contrary to the best medical knowledge, and is full of good advice to the class to which it is addressed, and gives its information in an unobjectionable manner, such a work as this calls only for general commendation. In the main, this volume seems to fulfill all these requirements, at least in so far as the principal part of the work,

that which treats of the physiology of woman, is concerned. The essays in the appendix are liable to some medical criticism. The first, on "The Coeducation of the Sexes in Medicine," takes a side of the question that some of the wisest and most practical medical authorities have rejected, and the arguments employed by the authoress in support of her views, do not, in our opinion, meet all the facts of the case. The second, on "The Physiological Basis of Education," is, in a measure, fanciful; that is, a single idea, that of the arterial supply of the brain as influencing character, etc., is pursued to an illegitimate or unphilosophical extent. The other two essays are not noticeable for anything that deserves condemnation.

The book is pleasantly written, the typography (barring a few errors) and make-up are excellent, and it doubtless deserves as wide a circulation as any work of its class and kind.

THE ARMY.

Official List of changes of stations and duties of officers of the medical department, United States Army, from Nov. 13, 1880, to Nov. 27, 1880.

Taylor, M. K., captain and assistant surgeon. Assigned to duty at Fort Wayne, Mich. S.O. 204, department of the east, Nov. 17, 1880.

Hoff, J. V, R., captain and assistant surgeon, Fort. Monroe, Va. Granted leave of absence for one month. S.O. 208, department of the east. Nov. 26, 1880.

Wood. M. W., captain and assistant surgeon. Assigned to duty at Fort Brady, Mich. S.O. 201, department of the east, Nov. 12, 1880.

Tesson, D. S., captain and assistant surgeon. Granted leave of absence for six months, with permission to go beyond sea. S.O. 244, A.G.O., Nov. 15, 1880.

Satterlee, Richard S., lieutenant-colonel and brevet brigadier general. Chief medical purveyor, United States Army, retired. Died at New York city. Nov. 10, 1880.

Brewer Z. W., captain and assistant surgeon. Died Nov. 15, 1880.

BOOKS AND PAMPHLETS.

J. J. B. Vermyne, M.D., New Bedford, Mass. Transactions of the American Otological Society, Thirteenth annual meeting, Newport, Rhode Island. July 21, 1880. Vol. II, part 4.

S. J. Jones, M.D. Twelfth Biennial Report of the Trustees, Surgeons and Treasurer of the Illinois Charitable Eye and Ear Infirmary at Chicago: (north-west corner of Adams and Peoria Streets) October 1, 1880.

Frederick D. Lente, A.M., M.D., New York, N. Y. Higher Education of Medical Men, and its Influence on the Profession and the Public. Being the address delivered before the American Academy of Medicine at its fifth annual meeting, held at Providence, Rhode Island, September 28, 1880. Published by direction of the Academy.

John F. Scanlan, 160 Washington street, Chicago. An Argument for a Protective Tariff. The Farmer's Question. Being a reply to the Cobden Club tract, entitled "The Western Farmer of America," by Jonathan B. Wise. John L. Hayes, L.L. D., Cambridge, Mass.

Edward W. Jenks, M.D., LL.D. Atresia of the Genital Passages of Women. A paper read before the Chicago Medical Society, July 19, 1880.

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George W. Beard, M.D., New York, N. Y. The Symptoms of Sexual Exhaustion. (Sexual Neurasthenia.) Reprinted from the Independent Practitioner, May and June, 1880.

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University of the State of New York, New York Medical College and Hospital for Women, 301 Lexington Ave., N. E. corner of 37th Street. Annual Announcement, Eighteenth Session, 1880–81.

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Nicholas Senn, M.D., Milwaukee. A Contribution to a Knowledge of Fracture of the Rim of the Acetabulum, Based on the Reports of Twenty-Seven Cases and Experiments on the Cadaver. Reprint from the Transactions of the State Medical Society of Wisconsin.

Preparatory Pains in Parturition.—We have found the fluid extract of Jamaica dogwood (piscidia erythrina) an excellent substitute for either opium or chloral in controlling the nervous irritability dependent upon the preliminary contractions of the uterus, in labor. It should be given in twenty to thirty drop doses, repeated hourly.

Chicago Medical Review

PUBLISHED ON THE FIFTH AND TWENTIETH OF THE MONTH.

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CHANDLER & ENGELHARD, Publishers.

BUSINESS OFFICE, 60 WABASH AVE. (Branch Office, 245 Broadway, N. Y.) EDITORIAL OFFICE, 70 MONROE ST.

VOL. II. No. 12. CHICAGO, DECEMBER 20, 1880. $2.00 A YEAR.

THE SIGNAL SERVICE AND PUBLIC HYGIENE.—The death of Gen. Myer has brought the Signal Service prominently before the public. While the memory of the great services which Gen. Myer rendered to meteorological science is still fresh, it is scarcely worth while to say that his death was a most fortunate one, both for him and the service. It was an open secret that, under his administration, all originality among the members of the service was most rigorously suppressed. The employes were mere machines, who were called on to act only when it was impossible to secure a self-registering piece of apparatus. Whether this studied and punctilious repression of originality was the fault of Gen. Myer or of military science, it is not our purpose here to discuss. Certain it is that the Signal Service has already attained quite the degree of usefulness possible under its previous management. The opportune death of the distinguished chief of the service has opened up to it new possibilities of usefulness. Chief among these is the opportunity to establish a department of public hygiene in connection with the Signal Service. We will admit that it is important that storm signals should, by timely warnings, protect our shipping interests from disaster. We admit that it is important that the reader of the morning paper should glance at the "Indications," and thus be able to take his rubber overcoat or linen duster down town with him. We admit that projecters of picnics and promoters of political gatherings may receive much assurance or much discouragement from the predictions of the weather. We contend, however, that this realm of usefulness may be greatly extended. There is a large class of diseases which are produced directly or indirectly by climatic influences. Sudden changes from wet to dry, from hot to cold, from calm to storm, are likely to produce colds, bronchial and lung troubles, or to develop germs of disease which otherwise would have remained quiescent. It is easy to see how an intelligent and scientific study of the influences of these climatic changes would lead to the discovery of the laws of their action on the human organism. It is likewise easy to see that a study of these details in the office of the Signal Service would lead to the prevision of their occurrence and a prediction of their results. We take it that it is of far more importance to the masses of our citizens to be officially warned of the danger of taking cold or contracting pneumonitis, than of areas of low pressure and the display of cautionary signals. Let the medical profession unite in a demand for the creation of a bureau of sanitary science in connection with the Signal Service, the special function of which shall be the study of meteorology in its relation to public health. Warned against impending

dangers, the wintry nose will cease to be a burden, and the jarring kakophony of the unereal cough will cease to be heard in the land.

The Woman's College Controversy.—In view of certain well-known, recent developments between the students of the Woman's Medical College and the young gentlemen of Rush Medical College, and in the interest of both institutions, we are called upon to correct any misapprehensions respecting the extent and character of the grievances on the one hand, and the responsibility for these grievances on the other. It is not believed that the students of the Woman's College have demanded or desired anything which does not belong to them. As students, they ask for the same opportunities of clinical observation which other medical students have. The clinics at the Free Dispensary are open alike to all medical students. These ladies, therefore, have a perfect and undoubted right to all the advantages of these clinics. As ladies, they have conducted themselves well, and undoubtedly have, in the treatment to which they have been subjected, a clear grievance. The responsibility for this rests somewhere. The attempt has been made by the secular press to fix it impliedly upon the students and upon certain members of the faculty of Rush College. In protesting against this general charge, we express the sentiments of the students of the Woman's College. A very small minority of the students of Rush College, afflicted with the irresponsible enthusiasm and actuated by the clownishness sometimes peculiar to adolescence, have disgraced themselves. It is unjust to fasten upon the entire college the responsibility which belongs only to a few, who in no sense represent the general sentiment. No censure could be too severe for the occupant of a professor's chair who would, under any circumstances, permit himself to use suggestively or pointedly, insulting, or obscene language in the presence of women, or who would, silently or otherwise, encourage such behavior in his pupils. We have carefully examined the merits of the case relative to certain reflections upon individual members of the faculty, and while we have the disposition to denounce such conduct in clear language, irrespective of the influence or reputation of the parties interested, we must, in justice, express the conviction that all reports prejudicial to these gentlemen have thus far been hastily born of prejudice or insufficient evidence. It is to be desired that it will not again become our duty to discuss this subject.

Asylum Abuses.—In a previous issue of the Review its readers were informed of the occurrence of a homicide in the City Lunatic Asylum, on Blackwell's Island, New York, under the superintendency of Dr. A. E. Macdonald. The N. Y. Neurological Society's delegate was invited to take part in the coroner's inquest which followed, and Dr. Macdonald strongly protested against this privilege. The making of this protest was, as the Review intimated on the occasion, a rather suspicious circumstance, and on hearing a report made to the N. Y. Neurological Society by its delegate, embodying the facts obtained at the inquest, our readers will readily understand why the superintendent of the asylum at which the homicide occurred should object as he did to the presence at the inquest of any advocate of asylum reform. It appears from this report that on January 24, at five o'clock A. M., Mary Stevens, a night nurse at a division of the lunatic asylum on Blackwell's Island, known as the "Retreat," was startled by a noise as of some one pounding something, and on opening the door of the cell from which the noise proceeded she found a patient named Maria Ottmer on the floor between two bedsteads, while another patient named Christ, who was beating her, jumped into bed on being discovered. Mary Stevens went for help, and while she was gone Elizabeth Christ again attacked Maria Ottmer. When the former returned, Maria Ottmer was found in a very exhausted condition, lifted into bed, and a physician called for. The assistant physician summoned, arrived at 6 o'clock and had Maria, Ottmer transferred to the hospital ward. The patient remained in a condition of coma until Monday evening, when she expired at half-past seven o'clock. The post-mortem examination

showed that an extravasation of blood had occurred within the cranium, causing death by compression of the brain, and that the cause of this extravasation, was the blow received by the patient Maria Ottmer at the hands of the patient Christ. An examination of the records of the asylum, and of the medical and other witnesses, showed that Maria Ottmer had been an inmate of the asylum for a period of three months during the year 1876, that her husband then took her home, as he did not think her treatment satisfactory, but was against his inclination compelled to send her back again on the thirteenth of January, 1879, she being violent and excitable. In the spring of that year, on one of his visits, found that she had a black eye, and was told by the nurse that his wife had been beaten. On another occasion he found that she again had a black eye, but was unable to find a physician about the building from whom to discover the cause. This injury was discovered by him on January 14, ten days prior to the day when she received the blows which, as above related, closed the history of her case. She was regarded by the medical officers as a case of "Dementia;" her physical condition was so feeble, that she had on several occasions been transferred to the hospital. At the time the homicide occurred she was very weak and restless, neither sleeping herself nor permitting the other patients in the same cell to sleep. The patient who killed Maria Ottmer, Lizzie Christ, was a powerful woman of a very dangerous character, and one who had made several violent assaults in the past; the record of her violent character was known both to the physician in charge of the "Retreat" at the time of the homicide, and the nurses on duty at the same time. The "Retreat" is a building three stories high, and containing at the time 157 inmates. During the day there was one nurse for every twenty-seven patients; at night but one nurse for the whole building, and she was assisted by three women from the work-house, each of whom had one floor under her charge.

It may not be out of place to remark here that the women committed to the work-house are recruited chiefly from two classes of the population, the habitual drunkards so-called, and the lower order of public prostitutes. The patients contained in the building were all of them violent and excitable. In it were several rooms, or more correctly speaking, cells, about eight by ten feet in area, closed by a door, with a small opening therein, by means of which the night nurse was expected to examine into the condition of the inmate or inmates. In one such room, there were huddled together three patients on the night of the homicide, namely, the aforesaid Maria Ottmer, and Lizzie Christ, and a certain Mary McDonough. Some extracts from the diary of the night-nurse Stevens may illustrate the manner in which these wretched human beings were treated:

"December 20, 1879 In Retreat three, there are three patients on one side of the room, and three on the other. I can't see how they stand it so close." "December 26, 1879 Maria Ottmer was very sick. Sallie Way was around the room all night, and was annoyed by Maria so she beat her and dragged her out of bed." The witness added here, that the day-nurse was accustomed to report verbally to the physician in charge, the condition of the patients, and that the day-nurse had been as anxious as the night-nurse to have Maria Ottmer transferred to the hospital ward. On one occasion when the latter was reported to have her feet swollen, no attention was paid to the matter by the attending physician. The night-nurse knew nothing of medicine being given to this patient at night. That the sleeping of three patients in one room was not exceptional is shown by the testimony of this witness that, at the period to which the abstracts from the diary related, Maria Ottmer slept with Sally Way, a noisy, and Hannah Hand, a sickly patient. It was also shown that there were several other rooms in which more than two violent lunatics were confined.

It appears then that in a building containing over one hundred and fifty insane patients of a violent and excitable character, distributed on three floors, many of them unprovided even with the barest sleeping accommodations, others crowded by twos and threes into narrow cells, and distributed on the three floors of the building under the

charge of a single nurse, and with no physician on the premises and with no attempt at what we are accustomed to call humane, or at any kind of medical treatment, a weak and sickly patient who as a result of a disease of the mind was restless, and disturbed other patients, was repeatedly subjected to violence at the hands of her more powerful fellows, finally received injuries leading to her death, from a notoriously dangerous comrade with whom and one other patient the victim had been locked in a cell measuring 8 by 10 feet in surface area, and remote from any succor in case of necessity.

It was brought out collaterally that the Ottmer homicide was not due to combination of isolated abuses, but was one of a series of over three-score similar acts of violence, the record of two pavilions reading more like a list of casualities after a heavy skirmish, than of a hospital ward. The coroner's jury in its verdict censured the Commissioners of Charities and Corrections, for appointing incompetent physicians to the asylums under their charge; and thus, on the very first occasion that a bona fide investigation of even the part of a single asylum history was made, the charges of the Neurological Society, and the Journal of Nervous and Mental Disease were substantiated to the fullest extent.

Within the same year, other incidents have occurred, illustrating the faultiness of our present asylum system. The conflagration at the Minnesota State Asylum, leading to the death of thirty-two inmates, was referred to in the last issue of the Review. From the St. Louis Clinical Record, it appears that two grievous accidents have occurred within a month at the St. Vincent's Asylum at St. Louis. One patient, a young lady from Texas, named Miss Sarah V., was admitted on June 17 of the present year. She was the subject of melancholia with suicidal tendencies. Before admission she had made two attempts at suicide, once by throwing herself from a second-story window, once by trying to set her bed on fire. The latter method seemed to be a favorite one with her. On September 23 she was left, with some other insane patients, in a room with a fire burning in a stove, without an attendant. Her hands were tied together, but this did not prevent her from opening the stove door and pushing a portion of her dress into the fire. Her entire clothing was soon in flames, and, although they were soon extinguished, her death resulted in a few hours. The other case was also the suicide of a melancholiac, who strangled herself and was not discovered to have done so until several hours after her death.

These accidents are not episodical; they are the legitimate results of neglectful supervision, and in some cases, at least, of incompetency. A patient at the King's County Insane Asylum, at Flatbush, having committed suicide, the superintendent testified that he was a melancholiac patient, with delusions of persecution, and not being suicidal, did not require extra watching. Now every experienced alienist knows that melancholiacs with delusions of persecution are suspicious subjects, nearly always, if not always, suicidal, and require constant supervision. The statement of the medical officer in question, who owed his appointment, as many of his colleagues do, to his influence with a political circle, clearly bears out the truth of the allegations made by the New York Neurological Society, if these were not already borne out by the testimony of asylum superintendents in murder and will cases. Our readers may remember the case of the Eastern superintendent who gave bromides for coma and hyoscyamus for stupor, according to his own admission. The chapter of asylum management, as carried on in America, may be a humiliating one to our national pride, but this is no reason for neglecting to expose incompetency and dereliction in duty. The profession owes it to itself to purge the record of American psychiatry.

Malignant Carbuncle of the upper lip, which increased in size in spite of incisions, has been successfully treated by Lindermann, (Archiv für Klinische Chirurgie, B. xxiii) by punctures and hourly injections of a two per cent. solution of carbolic acid at the edge of the diseased part. After three days the induration and swelling ceased, the punctures were discontinued, and the injections made only once in three hours.

Clerical Obstruction to Asylum Reform.—An episode in the investigation of asylum abuses, now being carried on by a committee of the New York legislature, is reported in a special telegram to the Times of this city of the 8th inst. A Mr. French, a city missionary, colporteur, or something of the kind, of the Protestant Episcopal church, had been summoned as a witness in regard to the condition of affairs at one of the local institutions, presumably the city insane asylum on Blackwell's Island, though the name is not given. The following letter from his superior, the superintendent of the city missionary society, was addressed to him, and came into the possession of the senate committee, and furnished an interesting and novel phase of the investigation:

New York, Dec. 6, 1880. My Dear Mr. French.—It is now just 9.30. and you are not summoned to appear till 10 A.M., and you had no right to go away without seeing me first; you have no business to testify before that committee at all, for you are not supposed to know anything at all in regard to abuses, if any exist, in the asylum. You testify at the risk of losing your position. Read what is said on page 12 of the by-laws, which I send by the bearer. Your simple duty is to read your plain instructions, and say that you have nothing to say about the internal affairs of the asylum. They do not come under your jurisdiction. You are there only to care for the spiritual welfare of the inmates and nothing more. It was very wrong in you not to wait and see me, for we could have talked the matter over and decided what to do. As I have said above, you will testify at the risk of losing your position, for there is a strong feeling in the board of trustees of the society on the subject, in regard to what has transpired in times past, and still stronger feelings on the part of the commissioners. Hoping that you will consider these things,

Truly yours,

V. C. T. Woodruff, Superintendent, etc.

The writer of the above was himself summoned, and acknowledged to the legislative committee its authenticity. He maintained also before them that his subordinate had no right to know anything that occurred on the Island in regard to which he might be called upon to testify, and that he must abstain from all criticism of the management or abuses; in fact, that the subordinates of his society should be blind and deaf, and especially dumb in regard to all existing evils, no matter how flagrant and extensive. His idea would seem to have been that they should be in spirit like grand inquisitors, holding that a little torture, more or less, was favorable to the spiritual welfare of the unfortunate inmates. No other sort of Christian could satisfactorily fill the bill. We are inclined to believe, in opposition to Col. Ingersoll, that to true Christianity is mainly due the humane and progressive spirit of the civilization of the present age, and even such exhibitions as this of the Rev. Woodruff, of the weakness and wickedness of churchmen, do not shake our belief. The upright subordinate, whose testimony, the paper states, recalled some of the darkest pages of Charles Reade, represents more correctly his profession than does his time-serving superior, or the trustees whose "strong feeling" was undoubtedly incited by the "still stronger feelings on the part of the commissioners." The whole episode illustrates the methods by which these abuses are kept alive, and its most satisfactory feature is in the fact that this attempt to suppress testimony directly defeated its object, and has furnished one of the strongest evidences of the need of reform.

The Announcements of the Chicago Medical Society sessions have recently acquired a singularly naive character. They seemingly strive to place the allurements of the meetings in their most brilliant light. The frequent use of the epithets "instructive paper" and "especial interest" reminds us of the now antiquated style of theatre programmes in the age of the bard of Avon, or of the circus advertisements of modern times. It would almost seem to strangers as if some internal defect were being masked by such an external show.

Dr. Louis Presse.—We notice the announcement of the recent sudden death of Dr. Presse, of Paris. As a medical journalist and littérateur, his career was brilliant.

THE PUBLIC LIBRARY.—The common council of Chicago has before it one very pressing and important duty, a duty, we may add, which must be met in the near future. It is to provide a suitable, safe and easily accessible home for our public library, now numbering more than seventy thousand volumes. The library is now located in the upper stories of an ordinary commercial building, subject to momentary danger from fire, in cramped, inaccessible and inconvenient quarters, and is therefore in pressing need of a better location. In other great cities of our country, liberal provision has been made for public libraries; other metropolitan communities have demanded that their libraries be treated liberally. In other words, other wealthy and populous cities have recognized the fact that a great public library is an invaluable treasure to the people, and hence they have at any cost, made their libraries accessible and inviting. Here in Chicago, we have done what we could to make our public library a conspicuous failure. It has been as migratory as a methodist minister; it has been hustled from loft to loft, seeking cheap rents, dark stairways and inconvenient localities; and latterly, the daily papers have charged that the public reading room has become a resort for loafers and tramps, to the disgust of its legitimate patrons. This is one of the consequences of the "Cheap John" policy which has dominated our management of the library. Now, our public library ought to be a vast power for good; it ought to radiate a healthful and benificent influence over our whole city. The public library building ought to be the constant resort of scientific and scholarly people; the scientific societies should meet there; students of all classes should flock thither for the purpose of consulting works of reference not found in private libraries, and the library should be especially well supplied with works of reference in all departments of knowledge, and a few small private apartments or "stalls" should be provided, where students might work in seclusion and quietude; in a single word, our public library should be appropriately prepared for the great work that lies before it.

At the very threshold lies this pressing question: Where shall the library be permanently located? No better location can be found than the old post-office building, which in justice and equity really belongs to the library; but stupidity on the one hand, and chicanery on the other, have succeeded in thwarting the designs of Congress and the people of Chicago in this regard. The next best situation, which is, or will in the not far distant future be, available, is probably the old rookery now facetiously called the "city hall." This preposterous building "growed" as Topsy did, and is a veritable architectural orphan. He would be a bold architect indeed, who would dare avow himself as the progenitor of our present city hall. It was thrown up in great haste to meet a pressing emergency, directly after the great fire. It will be vacated by the city officers upon the completion of the new city hall, now well nigh finished. We believe this property, at the corner of Adams and LaSalle streets, belongs to the city of Chicago, fairly and squarely, that is, it is not held in the grip of any "Board," and therefore the people may reasonably expect that their preferences may have some weight and influence with the city authorities. We suggest, therefore, that the present city hall property be devoted to the uses of the public library. The location is a fair one; the lot is large enough for many years to come, and the present building will answer for present purposes. It is large, and contains plenty of rooms, which is a desideratum, and it is quite too ugly to burn. Let the mayor and aldermen take this proposition under advisement, and let them look at it in a broad and liberal manner. The library must be provided for; what better plan can be suggested?

PSEUDO-MEMBRANOUS SPINAL MENINGITIS.—The Upsala laekarefœrenings Fœrhandlingar contains an account by Hedenius of a patient who, suffering from intense pains, at first attributed to rheumatism, finally had repeated attacks of vertigo and spasms of the abdominal muscles. On the autopsy, among other morbid appearances, an extensive pseudo-membrane several centimetres in length, covering the cervical enlargement, was found.

Aortic Aneurism.—The following cases, illustrating the operative treatment of aneurisms of the aorta, ascending aorta and arcus aortæ are reported by Küster in the Allgemeine medicinische Central-Zeitung (No. 35, 1880). W. B., thirty-seven years of age, entered the Augusta Hospital, in Berlin, May 27, 1879. His history showed no syphilis nor symptoms of heart disease. In December, 1877, he suffered from pains alternating in both shoulders, and in June, 1878, from pleurisy of the right side. The day after his admission to the hospital, an exacerbation of pain in the chest occurred, and the diagnosis of aneurism of the aorta was then made. There was pain in the right half of the chest, right shoulder-blade and right arm, and gradually a tumor developed on the right side of the thorax. In 1878 remarkable benefit was for a time derived from the use of iodide of potassium. In later exacerbations, subcutaneous injections of ergot proved of so much benefit that the patient passed the winter without pain. In March, 1879, pain was experienced in the pit of the stomach, and swelling so that eating was difficult. Severe pain to the right of the sternum, increase in size of the tumor of this region and increasing dyspnœa now followed in rapid succession, so that the patient was able to walk only a few steps. Pulsation could now be felt over the entire tumor. May 28, fluctuation could be felt to the right of the sternum, and the skin became so red and locally prominent that rupture seemed imminent. Diagnosis; sacular aneurism of the arcus aortæ, perhaps of the ascending aorta. May 30, the patient was anæsthetized, and, under strictly antiseptic precautions, the right carotid artery, below the omo-hyoid muscle, was dissected out and ligated with catgut, but the ligature was not tightened until the termination of the narcosis, in order to avoid brain disturbances. The operation lasted scarcely ten minutes, during which time the pulse was a little more frequent, but otherwise everything was normal. After the operation the patient felt well. In the night there was sudden, severe pain in the pit of the stomach, which was soon allayed by morphia and sinapism. Two days later the pulse was very frequent, but quieted down upon the application of an ice bag over the heart and the administration of digitalis. Two days after this, the wound was healing by first intention, the dressing was changed, the tumor to the right of the sternum had considerably diminished in size and was painless to the touch. Nine days after the operation, the wound was healed, all subjective symptoms, as pain, difficulty in swallowing, etc., had disappeared. There was no fluctuation of the tumor, and the dyspnœa was so far diminished that the patient was soon able to take long walks without difficulty. Twenty days after the operation he was able to leave the hospital, and in a few days he could, without inconvenience, mount stairs. This good condition lasted until July 15, when, after a sudden attack of sneezing, the pain and distressing symptoms before experienced set in anew, and forced the patient to seek relief in the hospital. It was now proposed to ligate the right subclavian artery. The patient consented, and the operation was performed August 23. The artery was ligated at the outer border of the scalenus muscle. The pulse in the right arm immediately stopped and could not be detected until three days later. No disturbance of the functions of the right arm followed, and the wound healed by first intention. Eight days later all distressing symptoms had disappeared, and the patient left the hospital September 1. In the beginning of October he was able to take long walks and attend to his business duties. On November 8, two and one-half months after the second operation, he suddenly died. The autopsy demonstrated an extensive aneurism of the ascending aorta, the sac of which was covered with a layer of coagulum from three to four centimetres in thickness. In the posterior part of the sac a rupture had taken place, and a large cavity, filled with blood, was found in the cavum mediastinum posticum and behind the right pleural cavity. Death was caused by this rupture of the aneurism. In this case, it must be acknowledged that the patient's life was prolonged about five months by these two operations.

W. B., fifty-two years of age, came into the hospital June 3, 1879. For the last twenty years, since a previous attack of poly-

articular rheumatism, he had suffered from difficult breathing and palpitations of the heart. In November, 1878, he had a pleurisy of the right side, after his recovery from which, the palpitations became more violent. An aneurism of the aorta was now diagnosticated. During the winter the above-named symptoms increased. Four months previous to admission anasarca commenced. The patient, all this time, had suffered no pain, nor was any external tumor visible. During the month of May, 1879, the attending physician made twenty injections of ergot, which relieved temporarily the distressing symptoms. The condition upon admission to the hospital was as follows: The patient was stout; there was considerable anasarca on the lower extremities and trunk, but none in the face; the dyspnœa was so considerable, that the patient could not lie down in bed, but was obliged to sit up; inspection of the thorax showed no local prominence or projection; the apex beat over the left nipple alone extended over a larger area than usual; on the right border of the sternum a slight thrill was detected; percussion showed a dullness over the sternum, extending five centimetres below the interclavicular notch; over the apex the heart sounds were normal; over the right ventricle and the pulmonary artery, a strong, bruit and a very weak second sound was heard; this bruit increased over the aorta and sternum, where no second sound could be heard; the radial pulse was weak and irregular, and equal on both sides, 104. Diagnosis, aneurism of the ascending aorta. On the next day, June 6, the right carotid artery was ligated below the omo-hyoid muscle. The narcosis lasted only until the artery was found, and the ligation with catgut was not made until the patient had regained perfect consciousness. The ligation caused no abnormal sensation. Immediately afterward, the pulse went up to 120, then to 144. In the evening the patient felt quite comfortable. The pulse was now 120. Digitalis was administered. During the night he had frequent cough. On the evening of the following day the patient commenced to get uneasy, and wanted to get out of bed, but responded quietly and clearly to all questions. During the night he became more and more uneasy, and death ensued at 6 A.M., forty hours after the operation. The autopsy showed hydrothorax, œdema of the lungs, enlargement of the heart, a diffuse aneurismatic dilatation of the whole ascending aorta and arcus, and descending into the abdominal aorta; in other words, diffuse aneurism. No deposits of fibrinous matter were found in any part of the enlarged vessel, the entire wall of which was in a state of endarteritis deformans. Above and below there was a fresh thrombous ascites. It was concluded that, in this case, death was caused by œdema of the lungs, following a disturbance in the circulation prior to the operation, to which, in this case, neither a good nor a bad effect could be attributed.

The author has gathered from the literature, nine cases in which this treatment has been tried, and attempts from these, in all eleven cases, to obtain an answer to the following questions: I. Is this Brasdor-Wardrop method of ligating to be recommended in the treatment of aneurisms of the aorta, or had we better resort to other methods of treatment? He is of the opinion that the operation in a number of cases, has afforded so much benefit, as regards the distressing symptoms from which the patient has been suffering, that we may conclude that by it life has been prolonged for several months, sometimes for several years. No lasting recovery is as yet on record, but this is not impossible, as in one case practical recovery was shown nine years after the operation. The results were as follows: In five cases the operation was of no benefit, or we might say did harm, but in six cases amelioration lasting for a longer or shorter time was obtained. This result is worthy of note, because it has been obtained a necessarily fatal disease, and at a stage in that disease in which death is certain to come soon. II. In what way is amelioration obtained by the operation in such cases? The author believes that the formation of clots in the sac of the aneurism is a conditio sine qua non that the amelioration shall take place. III. What method of peripheral ligation is the best? The author believes that the best way is first to ligate the right carotid, later the right subclavian, and still later the left subclavian ar-

tery. He does not consider the ligation of both carotid arteries, even when a space of time is left between the two ligations, a safe procedure, because of the grave disturbance of the brain which will be likely to follow. He further believes that the antiseptic method of operating, the catgut ligatures, and the precaution not to prolong anæsthesia after the artery is dissected out, and not to make the last step of the operation until the patient has regained consciousness, will do away with a part of the danger that has been met with in previous observations. On the other hand he does not intend to do away with the less radical methods of treating aneurisms, but advises that in desperate cases, in which all other means have failed, this surgical treatment should be resorted to.

Estimation of Albumen.—Some method of easily and accurately estimating albuminous matters would be of incalculable advantage to physiological chemistry, and thus indirectly to practical medicine. In no province of medical investigation has chemistry shown itself more impotent than in the domain of the albumens. It is, indeed, a sorry comment on chemical methods to be compelled to confess that the usual method of estimating albumen, on the supposition that it contains 16 per cent. of nitrogen, can only lead to the most erroneous results. For all other bodies present containing nitrogen, go to swell the total, and thus fictitiously increase the amount of albumen. Stutzer's method which is founded on the separation of the albumen from other nitrogenous bodies by the use of hydrate of copper, promises to lead chemical methods to better results. The great trouble has been to prepare the hydrate so that it would not undergo spontaneous change. This Tassbender, in a communication to the German Chemical Society, claims to have accomplished, by preparing and washing the hydrate in dilute glycerin, and preserving it in the same medium. If his work does all claimed for it, we may speedily hope to know something much more definite of the changes the albuminous tissues undergo when subjected to disease.

Vaccination in Chicken Cholera.—In the July 20 number of the Review we mentioned at some length the researches of Pasteur on the disease called chicken cholera. The astounding discoveries to which he was led by his ingenuity and perseverance constitute, doubtless, the greatest step in advance ever made in the germ theory. His latest developments add so much to our positive knowledge of at least one infectious disease, that the dreams of the most sanguine supporters of the germ theory can now hardly be called vagaries. In a note read before the French Academy of Sciences (reported in L'Union Médicale, Nov. 9, 1880,) Pasteur gives this résumé of his former discoveries: Chicken cholera is a highly infectious disease. Its virus consists in a microscopic parasite, which developes readily in artificial cultivating fluids (chicken broth). Hence the possibility of demonstrating that the isolated microbe is the real and only cause of the disease. The virus presents a variable virulence, according to its power. Its inoculation proves fatal, or produces the disease in variable intensity. These differences in the intensity of the virus may be reproduced experimentally. The immunity produced by a non-fatal attack of the disease bears a direct proportion to the intensity of the attack. Hence the milder virus may be compared in its relations to the severer attacks of the disease, to the action of vaccine virus in small pox. Our knowledge, however, is much more perfect as regards chicken cholera, because here we do know that all virus, no matter what its intensity, was originally derived from the same source.

Pasteur then revealed his process for diluting the virus. He procures, in the first place, the most intense virus possible; strangely enough, this is not derived from a chicken dying of the acute disease, but from the chronic form. Now and then an animal having passed the acute stage of the disease without death, continues to emaciate for weeks and months. The parasite during this time is localized in some organs, and the animal does not die until it enters the blood and there multiplies. The virus derived from such blood is invariably fatal, no matter what may

have been the virulence of the virus with which the animal has been originally infected. The virus cannot be cultivated indefinitely by inoculating successive quantities of chicken broth, without apparently changing its properties. If, however, the length of time during which the microbe remains in one and the same fluid is very considerable, it will ultimately lose some of its virulence. To retain its full intensity, it is necessary to transplant it from time to time into a new soil. If it remains, however, in the same quantity of chicken broth for more than two months, its infect ng power will begin to decline. The disease caused by it runs a less acute course and its mortality diminishes. This diminished malignity of the virus is quite apparent after it has remained for some eight or nine months in the same fluid. If the length of time exceeds this period, the microbe dies, and its infectious power is lost. However, the diminution of virulence may vary quite considerably in various samples, kept apparently under the same conditions and for the same length of time. But even this irregularity, Pasteur traced to its true cause.

The author explained in his note that the reason why he did not reveal his method sooner was the long time required for such researches. When the virulence of the virus has once been diminished by reason of the long abode in one and the same cultivating fluid, the degree of virulence actually existing may be maintained indefinitely by transferring it to fresh cultivating fluids. Too long an abode in another fluid will again weaken the intensity of the parasite, until it finally dies. A virus once diminished in its virulence cannot live in an unchanged fluid as long as the virus of original strength.

The cause of this deterioration of the virus Pasteur traced to the influence of the air. By enclosing infected cultivating fluid in air-tight vessels, in which the last trace of oxygen was soon consumed by the parasite, the virulence did not diminish in the course of nine months, by which time the same fluid, exposed to the air had become completely inert. Pasteur, hence, refers the gradual destruction of the parasite to the oxygen, and insinuates that it is, in all probability, this substance which checks epidemics of infectious diseases. It does not seem to us, however, that his experience with closed vessels proves conclusively the influence of oxygen, however likely it may be. He does not exclude the action of other atmospheric constituents. He adds, however, some further interesting details. When the infected, turbid fluid is kept in closed tubes, it becomes nearly transparent after a time. This is due merely to a change in the refractive index of the parasitic granules. It seems that this parasite does not perpetuate itself by means of spores. He, at least, could not find any. Moreover, spores are always more resistant than the original fungus, while in the case of the chicken cholera virus, old cultivating fluids are deprived of their power by heat, even more readily than the fresh growth.

Pasteur adds that if two samples of cultivating fluid exposed to tbe air do not lose their virulence at the same rate, it is due to the fact that the microbe forms a layer at the surface of the fluid, which absorbs the oxygen and prevents it from reaching and acting upon the lower strata. The density of this superficial layer may, of course, vary with most trifling influences, and hence the want of uniformity in the deterioration of different samples of the virus. The author states finally that it is impossible to obtain a virus of medium virulence by a mixture of cultivating fluids of high and low degrees of intensity.

The author wisely abstains from speculating. Perhaps it may be best to follow his example and wait for further corroboration and extension of his researches before we dare really, to apply these results in the case of other infectious diseases also. Apart from the astounding pathological influence of Pasteur's researches, they have a bearing to which the author himself does not call attention. They constitute, in a certain way, the proof of Darwinism. They show that a living being, the chicken cholera parasite, will undergo a very distinct change, as evidenced by its virulence under adverse circumstances. We have here an instance of the force of external conditions upon the vital power, perpetuating itself through all further generations.

HUMAN AND ANIMAL VARIOLÆ.—It will be recollected by many of our readers that about five years ago an Italian commission reported that the natural cow-pox lymph inoculated on mankind increases in potency, so that humanized lymph has double the potency of that from animals, but that on re-vaccinating animals with humanized lymph, the latter loses in activity. The most important results were, however, the following: first, human small-pox can not be transmitted to cattle, while syphilitic virus implanted in bovines can be successfuly re-transferred to man. Professor George Fleming, the distinguished British veterinarian has submitted these results to a critical review and confirms them, his conclusion being that no one can maintain that human variola and cow-pox are one and the same thing. There is no relationship or resemblance between them except that they are both eruptive, both run a certain course, generally attack the organism only once in a life time, and are, (which fact is at the basis of preventative vaccination) antagonistic to each other. The most exhaustive, careful and extensive experiments by the ablest pathologists have failed in transmuting variola into vaccinia. A Mr. Ceely, who claims that this can be done, affords him strong proof of the contrary, for he describes a case where the vaccinia was transferred from herd to herd by a milker with chapped hands, showing how easily this disease is transmitted as contrasted with the difficulty, if not impossibility, of transmitting small-pox to cows, and could only on his own showing, succeed in transmuting human small-pox into cow-pox in two instances. In the latter, Fleming shows that the cow-pox was more probably due to direct transmission from other cattle, that source of error not having been excluded by Mr. Ceely. Another important point is alluded to by Mr. Fleming, the existence of two distinct eruptive affections in cattle, one being the genuine cow-pox or vaccinia, whose transmission to the human subject antagonizes small-pox; the other is termed vaccinella, and seems to be a sort of post-puerperal affection attacking cows after calving, and, being highly contagious, it is an entirely different disease, and vaccination from its pustules and nodules would have only a negative effect. The state of the question of vaccination to-day, is formulated by Fleming as follows: The vesicle of vaccinia has been simply transferred from the cow's udder or teat to the human arm; there is nothing of small-pox in it.

PRECOCIOUS OPIUM HABIT.—Dr. J. Mackenzie Booth reports in the British Medical Journal, Nov. 13, a case of a male infant aged four months, who had been treated with opium for colicky pains till he was taking, at the above age, six to eight drachms of laudanum daily in drachm doses. The child was much emaciated, and the legs were constantly kept flexed upon the abdomen, save when narcotized with not less than fifty drops of laudanum. There was no vomiting nor cough, nor other symptoms of disease, and the appetite was good. The doctor reduced the dose gradually, ten drops per diem, and with the use of cod liver oil, bismuth and pepsin, and an occasional laxative, the habit was broken off, and the child regained its health completely. It would seem that its constitution must have been one of those unusual ones that tolerate opium in an exceptional manner; we have never seen any similar case reported.

THE AMERICAN PUBLIC HEALTH ASSOCIATION held its annual meeting in Grunewald Hall, New Orleans, commencing December 7. Over one hundred delegates, representing every section of the United States, were present. The representation from Illinois was large. The Chicago delegation included Drs. H. A. Johnson, Edmund Andrews, John H. Rauch, Howard Ross, R. E. Starkweather, J. M. Hall, S. V. Clevenger, F. W. Riley, L. H. Montgomery and E. C. Dudley. The meeting was most successful, not only in the matter of attendance, but also in the character of the papers presented. This success is largely due to the indefatigable exertions of the president, Dr. Billings, and to the courtesy of the railway companies, who either furnished passes or offered reduced rates to members of the association, thus permitting many to attend who might otherwise have been deterred by the distance and expense involved.

Careless.—The New York correspondent of the Boston Medical and Surgical Journal, in his "Medical Notes," in the issue of Nov. 11, is made to make some rather remarkable statements. Speaking of the American Museum of Natural History, he says, that among its recent acquisitions is a collection of sand and fresh water shells, and that the entire collection of shells has been remounted in such a way as to show the position in which they rested upon the upper vertebræ during life. The superintendent's name is erroneously given as Professor "Brickmore." Noticing typographical errors is rather minute criticism, but these are glaring and pretty closely clustered, and make nonsense of the passages in which they occur. It looks ill for the culture of medical men in Boston, that their representative and only medical journal should be so careless when revising matter pertaining to "the allied sciences." The "shell" that rests upon the atlas of this journal, ought to shell out something a little more accurate when referring to matters of natural history.

A Source of Error in Cerebral Pathology.—It is a fact not mentioned in any of our text books or accessible monographs that the pia mater is naturally much more adherent over the occipital extremity of the cerebral hemispheres than at any other region of the cortical superficies. This peculiarity is constant and is even found in the ape's brain. The histological details of this attachment have not been studied, but its existence is important to note, for those unaware of it might interpret it as pathological. Adhesions of the same firmness occurring at other points and of as limited an area are well known to be the frequent results of periencephalitis, and are among the most constant lesions of the brain in paralytic insanity. Hence the necessity of bearing the existence of the local peculiarity mentioned in mind.

Dr. Wilms, of Berlin, probably the greatest operating surgeon in Germany, died recently of blood-poisoning, the result of a slight wound received during an unimportant operation.

LOCAL.

CHICAGO PHILOSOPHICAL SOCIETY.

Dr. J. S. Jewell read a paper on "The Influence of Our Present Civilization in the Production of Nervous and Mental Disease," before the Philosophical Society, December 11. The lecturer commenced by defining the phrase "nervous and mental diseases" as those affections which have their organic seat in the nervous system and are manifested by derangements of nervous and mental functions. The phrase is a much more comprehensive one than is generally understood, and must be considered in the broadest sense of the word. The doctor believes that nervous and mental diseases are increasing, and must, of necessity, increase with an advance in civilization, notwithstanding the contrary has been maintained as correct, in view of the statistical method of comparison. In defense of his position, the lecturer called attention, first of all, to the fact that an advanced civilization implied a higher degree of specialization or refinement in function, and hence in structure, than is known to exist in comparatively uncivilized states of the race. This implies a greater range for pleasure, and, side by side with it, a greater capacity, range and variety for suffering, and therefore greater susceptibility, in many ways, to disease.

The lecturer next called attention to the bad effects on the nervous system of various intellectual and physical occupations characteristic of a high, as compared with a low state of civilization. Under this head, he directed attention to the institutions of learning in this country, from the common schools up to our universities. He alleged that, as at present conducted, a large majority of those in attendance are systematically overtaxed in ill-ventilated and poorly-heated school-rooms, and, as a result, some of the slighter, if not graver forms of nervous and mental disease are produced. Then, the fixed use of the eyes leads frequently to ill consequences, partly by exhausting and rendering irritable the visual nerve apparatus, producing asthenopia and other disorders. These affections are frequently overlooked or disregarded by

those who have the care of children, and with disastrous consequences. The deleterious effects of studying late of nights were next spoken of, and this was said to be a frequent cause of nervous and mental disease. The means used in these present times to incite the student to every possible exertion in the race for an education were severely condemned. The lecturer next directed attention to the ill consequences resulting from overwork by professional men. This, he said, is more common in the present advanced, as compared with a more primitive civilization. From various motives, the professional man of the present day, in order to succeed in the fierce rage for supremacy and professional rewards, is exhausted or overcome. He works too many hours, becomes more or less irregular as to the times of taking food, maintains for unusual periods high states of brain activity, and has produced, gradually, sometimes suddenly, cerebral congestions, sleeplessness,impaired digestion, headaches, etc., a large proportion of which are directly traceable to overwork and other incidents of professional life. Then, again, the intense strain to which the brain of those having the responsibilities of large commercial and financial concerns, and the consuming fire of care and anxieties, which cannot be laid aside as physical or mental labor may be, often tell more disastrously upon the nervous organization than any overwork can do. As examples under this head, the lecturer spoke of the speculative mania, and said that a large share of the business done on our boards of trade and exchanges was of the speculative kind.

The lecturer next passed to a consideration of the effects of stimulants and sedatives in the production of nervous disorders. Tobacco and alcohol were briefly alluded to, but especial attention was directed to coffee and tea. They are, taken altogether, the purest nerve stimulants known. They are not tonics in any sense of the word. The speaker was ready to declare that he knew of no other way in which moderate harm to the nervous system is done to the same extent as by the use and abuse of coffee and tea. The next point touched on was the refinement and specialization of labor in an advanced as compared with a primitive form of civilization. As examples under this head telegraphy and type setting were cited and attention was especially called to piano practice by the young. As at present carried on, the lecturer was of the opinion that many nervous disorders were produced in this way. The lecturer closed his discussion by briefly calling attention to the part played by heredity. This he considers another important means by which nervous and mental diseases may be produced.

The doctor was followed by the appointed critics, Dr. Z. C. Grosvenor and Mr. C. L. Rawson. The former endorsed Dr. Jewell's paper throughout, but carried the idea somewhat further than was necessary, perhaps, or correct, in disadvantageous comparison of the physique of Americans and Europeans, especially the English. Mr. Rawson, in part, took issue with this view. He, however, seemed to be somewhat under the spell of Dr. Beard's lecture, and had the idea that American nervousness was still the subject of discussion. These were followed by Messrs. Bissell, Willard, Burke, Crawford, and others. Dr. Willard advocated the six-hour system of study in our public schools, a medical supervision of the sanitary arrangements of schools and physical condition of scholars, and arrangement of the courses of study to correspond with the best and most scientific hygienic data. Mr. Crawford stated that the number of students hurt by study, in his extensive acquaintance with the higher institutions of learning of our country, was very small, and that the numerous physical failures observed were due rather to dissipation of various kinds than to hard study.

In reply, Dr. Jewell stated that his experience with students, extending over a period of between eight and ten years in a university town, had been that a very much larger number of cases of nervous disorders could be traced to injudicious study than had been mentioned by a previous speaker.

CHICAGO BIOLOGICAL SOCIETY.

At the December meeting of this society, Dr. D. A. K. Steele reported a peculiar case of concussion of the brain. The patient fell

from a roof, striking on the right temple, shoulder and thigh. His symptoms afterward were marked muscular flexion, partial consciousness, traumatic pneumo-hydrothorax; later: abnormal dullness of taste and smell and acuteness of hearing, incessant talking, ravenous sexual appetite, acute articular rheumatism, temperature on one side of the head two and one-half degrees higher than on the other. He was removed to Mercy Hospital; while there, became very angry at a nurse, and from that time improved rapidly. Dr. Steele then invited examination of the patient, who was present. Remarks were made upon the report by Drs. Bannister, Brower, Haines and others. Dr. R. S. G. Paton then read an interesting paper on water analysis. The following officers were then elected for the ensuing year: President, Dr. W. S. Haines; Vice President, Dr. E. F. Ingals; Secretary and Treasurer, Dr. Roswell Park, re-elected; Council, Drs. Tilley, Steele and Bannister. Dr. H. M. Bannister then made some remarks in regard to the psychic element in color-blindness; after which Dr. A. W. Adams, of Colorado Springs, Colorado, exhibited some instruments for the illumination of the ear and larynx by the electric light. The society then adjourned.

CHICAGO ELECTRICAL SOCIETY.

At the November meeting of the Chicago Electrical Society, Dr. S. V. Clevenger presented a communication on "The Study of Biology; its importance and tendencies." After speaking of the appropriateness of discussing such a subject before an electrical society, the author gave a minute description of the importance and tendencies of biology in this age. Biology, in the author's opinion, is the basis or stepping stone to all scientific knowledge. He would make it the cornerstone on which our public school system should be built, and in the kinder-garten he would instill into the minds of the infants the principles of biology, which, in their later school life, would pave the way to the comparatively easy mastering of the higher branches, among which the dead languages should hold a minor position. In conclusion, the essayist made a strong plea for the establishment of a school of biology in this city. The lecture was amply illustrated with microscopical slides and micro-photographs, by means of the oxy-hydrogen light.

WEST CHICAGO MEDICAL SOCIETY.

Dr. S. J. Holmes reported to this society, December 13, a case of acute abscess of the liver, opening through the abdominal walls, which ended in recovery. Dr. H. M. Bannister will read a paper at the December 27 meeting, on "Some points in Regard to Color-Blindness."

CHICAGO MEDICAL SOCIETY.

Dr. Christian Fenger read a paper before this society at its last meeting, on the endoscope and its use in chronic gonorrhœa or gleet, and gonorrhœal rheumatism. The paper was published in full in the last number of the Review. The discussion was participated in by Dr. Paoli and others, whose remarks were in general confirmation of the views expressed by the author.

BLENORRHAGIA.—Pasqua employs in the treatment of blenorrhagia (Lyon Médical) urethral injections of a solution of one and one-half parts of chloral hydrate to one hundred and twenty of rose water. By this means the author claims that the desire to urinate and the erections are quickly allayed that the discharge is controlled, and that complications are avoided.

NEW ORIGIN OF THE CRANIAL NERVES.—Roller, of Strasburg, and Stilling, of the same university, have each added to our knowledge of the optic and auditory nerves, the description of roots alleged to connect these nerves with the spinal centres, thus furnishing an anatomical foundation for the experimental teachings of Goltz. The former describes an ascending auditory root, which runs from the region of the column of Burdach to the exit of the main trunk. The latter claims the existence of a deep branch of the optic tract, which through the intervention of Luy's subthalamic ganglion, enters into communication with the fibres running to the spinal cord.

CONTRIBUTIONS.

OTORRHŒA.

Hints on Treatment.

BY DR. H. GRADLE, CHICAGO.

The absurd prejudice that a "running" ear should be let alone has not yet died out wholly among the laity. It is even fostered by some in the profession, no doubt on account of the rebelliousness of chronic suppuration of the middle ear to routine treatment. But apart from the danger to the ear, the disease involves a perhaps slight, but undeniable risk to life. More cases are being reported every year, in which suppuration of the middle ear led suddenly to meningitis, mastoid abscess, phlebitis, and even pyæmia. The existence of this danger is beginning to be recognized also by life insurance examiners.

Otorrhœa, when once established, has but little tendency to heal spontaneously. I have never seen the discharge following scarlet fever, not complicated with any other disease, stop without treatment. The chances of its spontaneous termination are very much reduced, also, when the throat is much inflamed. But uncomplicated cases, not the sequence of some constitutional disorder, sometimes heal with no further attention but cleanliness. Even in these instances, the treatment shortens the course; but the routine application of so-called astringents, as advocated in older text-books is, at the best, but very unreliable. There exists a fear that the middle ear is intolerant to stronger applications. This notion I have not at all found true, at least whenever the perforation of the membrana tympani is extensive. I have formerly used solutions of nitrate of silver, of four per cent. in strength, or of one part of tannin in four of glycerin, without producing much pain or other unpleasant reaction. But experience has shown me that such strong applications are rarely necessary. The cardinal rule on which I now insist, is to make all applications myself, and if at all feasible to let the patient do nothing himself. Many a time I have had a quick success on adopting this practice, when the conscientious patient had himself made applications, under directions, for weeks, in vain. The physician can easily satisfy himself that his own syringing or other procedure is unreliable, unless controlled by the direct observation through the ear-speculum.

Before giving any advice, the parts should be well cleansed. Lately, some authors have protested against the use of the syringe. This is exaggerated. We can dispense with the syringe if necessary, but it is by far the most convenient instrument to remove pus or crusts. The ordinary tén-cent glass syringe is indeed almost useless, but a fountain syringe with a fine nozzle, or the rubber bulb save much time. Subsequently, a delicate cotton-holder with absorbent cotton will do very well to remove the last traces of fluid. A silver probe, with a spiral notch near its end, is the most convenient cotton-holder, the plug of cotton being easily adjusted by a slight twisting motion, and just as easily removed.

I wish to limit my remarks wholly to the treatment of uncomplicated cases. Although the plan to be described is of service in every case, a full success can only be expected in uncomplicated suppurative otitis, or after the operative removal of polypi or granulations, if present. These must often be searched for with the eye or with a curved probe in nooks and corners, if we are not to be foiled in our expectations. If the perforation of the membrana tympani is too small to permit the entrance of fluids, it must be enlarged, at least temporarily. On the other hand, the presence of a very large perforation, or even distruction of the whole membrane, may render the case more obstinate; but even then the success will ultimately be obtained.

The treatment on which I have relied wholly within this year, is the antiseptic plan. Its success, however. can only be assured by proper attention in every direction. The throat disease, if at all marked, must be treated at the same time, if relapses are not to occur. It is required, also, that the feet should not be allowed to get cold or wet. After directing such hygienic measures, the middle ear must now be disinfected and kept in an aseptic condition. The necessity for disinfection is often apparent by the extremely fetid smell of the discharge. I have not, however, found such cases, in which the pus had become decomposed, more obstinate than those in which the discharge is odorless.

The European authors (Kühn and Bezold) who first recommended the antiseptic plan, used salicylic acid. I have employed this drug in aqueous solution, about ten grams per oz., held in solution by the presence of borax, but had imperfect results. Absolute disinfection was indeed obtained with a glycerin solution (1 in 15), but this, if anything, increased the discharge. Boracic acid in 4 per cent. solution I have likewise found unreliable when there existed marked fetor. I have finally resorted to 5 per cent. solutions of carbolic acid, which produce but very little momentary burning. After cleansing the ear, I fill the meatus with the warm solution, which I force into all crevices by blowing through

a rubber tube fitting into the meatus. The solution still in the ear, a tight plug of borated cotton is inserted and left in place. A single application will generally, though not always, suffice for complete disinfection, as judged by the smell. If necessary, it is repeated the next day, or even several days. The discharge changes at once, becoming thinner and less copious. The carbolic acid will alone suffice for a cure, if continued long enough, but since it may give rise to some excoriation of the meatus, a more convenient plan may now be adopted. The least annoying of all applications I have so far tried is dry boracic acid, reduced to a very fine powder. The well-disinfected ear is dried with absorbent cotton and the powdered acid poured through the speculum, while the head is inclined on the other side, until the meatus is half filled. The ear is hereupon plugged with clean cotton. The powder absorbs all discharge and keeps it from decomposing.

The discharge is at once lessened noticeably, so that the second cleansing and reapplication may be deferred from two days to a whole week, and later applications need rarely be made oftener than once in three to eight days. The boracic acid powder may be employed from the beginning if the discharge is free from smell. But even in some such instances the effect was much more marked after the previous use of carbolic acid. It is, however, no substitute for the latter volatile disinfectant, wherever marked fetor is present. Moreover it has been shown that concentrated (4 per cent.) solutions of boracic acid cannot wholly check an existing putrefaction.

In some instances, when the boracic acid powder did not reduce the discharge at first as quickly as desired, I have changed it for powdered iodoform. It has often seemed to me as if this latter agent lessened the discharge even quicker than boracic acid. But as soon as the discharge has been reduced to a few drops, in the course of several days, I have found it best to return to boracic acid again, since iodoform failed to remove the last traces of suppuration. My experience with iodoform has not been large enough to make positive statements, but I have at least the impression that, if boracic acid is somewhat slow in action, the discharge may be removed quicker by a few intercurrent insufflations of powdered iodoform. In most instances, however, I adhere to boracic acid after previous disinfection with carbolic acid. I will quote no statistics, since the results vary so much in the time required for the cure as to render any *average* duration illusionary. Some unpromising cases yielded after scarcely two weeks' treatment, while, in a few other instances, in which I could not detect any complication, several months were required. Ultimately, however, the discharge was removed in all who persisted in the treatment. Even when this treatment is to be continued a long time, it is not inconvenient, on account of the rare and painless applications. Relapses do, of course, occur occasionally, especially when there exists much throat disease, but such an event cannot be avoided by any treatment.

In case of caries of some part of the bony wall of the middle ear or of the adjoining cavities, the discharge can not usually be stopped entirely. In fact, this complication should be looked for with special care when the treatment fails to effect a complete cure. But even in such a case the boracic acid powder will reduce the annoyance of the patient to a minimum, and cannot but diminish the danger to life by keeping the parts in an aseptic condition. I have sometimes found it difficult to distinguish between the last trace of pus, especially when dried, and a very soft cerumen. Patients may even think that the otorrhœa has returned when there happens to be merely some unusually soft wax in the meatus. In such cases I have decided the question with the microscope.

HÆMORRHAGIC SMALL-POX.

An Unrecognized, Fatal Case

BY A. G. PAINE, A.M., M.D., CHICAGO.

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Read before the Chicago Biological Society November 3, 1880.

Such is the title of an article by Bulkley in the Medical Record of April 27, 1878. Had I read the article at the time of its publication, I might have escaped the mortification of giving the same heading to the case which I now hold it my duty to report. And yet my case was more difficult of diagnosis than Dr. Bulkley's, and the sequel alone, it seems to me, could make it beyond a doubt.

May 24, 1880, I was called to see J. H., aged thirty-four. He said that he got very wet a few days before, and had not been well since. He complained bitterly of headache, pain in the back and stomach. The temperature was not above 100°, and the pulse was 90. Bowels obstinately constipated; urine scanty and very high colored; no albumen. The next day the patient was worse, pulse 100, temperature 101°, and upon visiting him in the evening, I found a large number of petechiæ upon the abdomen, and also six or seven large bullæ. The following day, the third that I had seen him, I found the petechial eruption greatly increased, but no more bullæ, nor did any more develope. Pulse

was now 110, temperature 102°, face was dusky and mottled, conjunctivæ congested, and a few small hæmorrhages could be seen beneath them. No papules could be discovered, though they were diligently sought for. There was slight cough, and the sputa soon became tinged with blood. The urine also contained blood. On the fourth day the pulse and temperature were a little lower, but all other symptoms were aggravated, the urine was almost all blood, the entire body, with the exception of the face, thickly crowded with petechiæ. These hæmorrhages were of all sizes and shapes, some nearly an inch across. Patient's face was swollen and livid, the conjunctivæ filled with ecchymoses. The fifth day the pulse and temperature fell to normal, and in the afternoon my patient died.

I have now given, as I conceive, the main features of the case. Dr. Bulkley truly says that there is no good description of these peculiar features in the text books on general medicine, or dermatology. Four medical gentlemen, beside myself, saw the patient, and I gave a detailed description of the case to an eminent practitioner who was not able to see it. We consulted a large number of authors, and his opinion coincided with my own, viz., that my patient was suffering from rubeola hæmorrhagica, and thus, when my patient died, I signed the death certificate. Two weeks later, his little girl was taken sick, and soon developed a typical case of confluent small-pox, from which she recovered. An attendant also had a mild attack of varioloid.

The difficulty of diagnosis has appeared greater to me than it did to Dr. Bulkley, and with good reason, for I failed. Let me quote him: "In regard to the diagnosis," he writes, "I need only say that the entire group of symptoms, as detailed in this case, can be presented by no other disease; purpura hæmorrhagica, which it most resembles, would not have the initial chill, nor the fever and throbbing pulse of 120, nor the papules on some of the ecchymoses and the vesicles or pustules on the others. Black measles or black scarlet fever, the hæmorrhagic varieties of these diseases, would also never give the pustular element; moreover, would not be so rapid in progress or violent in character, and would possess other features characteristic of each, as the catarrhal features of measles and the throat disease of scarlatina."

Now, in my case, upon the second day, six or seven large bullæ were seen upon the abdomen. These were at first filled with clear fluid, but it soon became bloody. The number of bullæ did not increase, and no other lesion of the skin appeared save the cutaneous hæmorrhages, which before death had covered the whole body, excepting the face. The petechial eruption alone suggested purpura hæmorrhagica, but the general condition of the patient pointed almost unmistakably to an exanthematous fever. The question was, "Which of them?" The severe back-ache, as one physician who saw the case remarked, was suggestive of small-pox, but the absence of the minutest papule seemed conclusive against that diagnosis. The photophobia, the cough and bloody sputa, together with the mottling between the petechiæ and upon the face, tipped the balance in favor of measles. My patient was given quinine and acid, wine and milk. But from the first, the case seemed hopeless. Dr. Bulkley bled his patient to twenty ounces and then gave ergot. Although his patient died in a few hours, he "would be inclined to advise it again."

I have no treatment to recommend, but should certainly abstain from the use of the lancet. I cannot expect to see another case of this kind; certainly I do not wish to, for I should be as much in doubt as before. Hoping, however, that it may be of some value to the profession, I have seen fit to report it.

Cholera and the Water Courses.—We have so often in these columns accused water of all the crimes in the hygienic calendar, that it is with real pleasure that we insert the following testimonial of its innocence in producing cholera. Dr. Cunningham, the imperial sanitary commissioner of India, in his fourteenth report, says: "Cholera almost invariably travels not down but up the great drainage channels of the country." Dr. Tidy, also, in his report on river waters, says: "That the progress of such a disease as cholera, is not down a river at all, as we should expect it to be, but in the opposite direction." Whatever be the nature of the cholera germ, if there be a cholera germ, we may at least safely say that it is not carried by running water. The same statement may with equal propriety be made concerning the active principle of yellow fever. Chemistry and biology have only just begun their investigations in these important fields.

Morphia Solution.—By the addition of a fragment of camphor to a solution of morphia, for hypodermic use, and then heating the solution to boiling, decomposition will be, in a great measure, prevented.

CORRESPONDENCE.

NEW YORK LETTER.

NEW YORK, December 9, 1880.

THE CARTWRIGHT LECTURES. — ANTAGONISTS OF ATROPIA.

The third lecture upon the Cartwright foundation was devoted to the consideration of the antagonists of atropia. Dr. Bartholow began by discussing the effects of physostigma, reviewing the work done by himself and other experimenters in demonstrating its antagonism to belladonna. Their effects upon the pupil, upon the respiratory function and upon secretion are directly opposed. Upon the heart, cerebrum and spinal cord they act differently, but are not antagonistic. Physostigma increases the power of the heart by paralysing the cardiac ganglia, but does not affect its rate, while atropia increases the rate, but not its power. Physostigma does not affect the cerebral function, while atropia excites delirium. Physostigma and atropia are both paralysers in their spinal effects. The antagonism is therefore limited, and while atropia will overcome the lethal effects of physostigma by stimulating respiration, it is doubtful whether physostigma would be of use in poisoning by atropia.

The opposing action of atropia and pilocarpine was then taken up. Pilocarpine stimulates the secretion of sweat and of saliva, slows and weakens the heart's action, lowers arterial tension, contracts the pupil and causes spasm of accommodation, with recession of the near point of vision, in each of which effects it is directly antagonized by atropia. Upon the brain their action is not opposed. Children are less susceptible to the action of each than are adults. In cases of poisoning by either, the other may be employed.

The antagonism between atropia and muscaria was next considered and shown to be complete upon the functions of the brain, iris, heart, respiration and secretion.

In their action upon the heart, arterial tension and blood pressure, atropia and quinia were regarded as directly opposed. But little practical good can be expected from their combination.

Atropia is also an antagonist to bromal hydrate in its effect upon the pupil and the secretions, and in poisoning by this drug, atropia counteracts the failing respiration and stimulates the heart.

Lastly, the antagonism between atropia and aconite was discussed, especially with reference to poisoning by the latter. In such cases, the shallow and labored respiration, the small and slow pulse, and the profuse sweat, all point to atropia as the antidote. As the depression of the heart's action is the chief danger, heart stimulants are to be used, and among them atropia, is prominent. In most of their physiological effects the drugs are directly opposed.

ANTAGONISTS OF CHLORAL.

In the fourth lecture, Dr. Bartholow discussed, first, the properties of chloral hydrate, pointing out its antagonism to strychnia in its action upon the reflex functions of the spinal cord, upon the heart, arterial tension and respiration. In cases of poisoning by either drug, the antagonist should be used, but the administration of chloral in cases of strychnia poisoning is more likely to be successful than the use of strychnia in chloral poisoning, since, in the first case, death results from spasm of the respiratory muscles, due to stimulation of the reflex centres in the cord, to which stimulation chloral is completely antagonistic; while in the second, a more decided cardiac stimulant is needed, and the temperature must be maintained. In strychnia poisoning, chloral is to be given till the spasms are restrained, the amount varying greatly in different cases. In one case reported, 105 grains were given, with the result of saving the patient. Amyl nitrite may also be inhaled, as it is antagonistic to strychnia in its action on the heart and arterial tension. In chloral poisoning, strychnia may be given in dose of one-sixtieth of a grain, followed, in half an hour, by one one-hundred and twentieth of a grain, which may be repeated at intervals of half an hour.

Chloral is also antagonistic to atropia in its action upon the respiratory and vaso-motor centres, though both produce motor paralysis. The effect of atropia in opposing the depression of the heart and respiration produced by chloral indicates its use in cases of poisoning by this drug, and it is to be given in small doses, repeated until its action is evident. In atropia poisoning, chloral cannot act as efficiently as opium, and is therefore contraindicated.

It was also stated that chloral and picrotoxin are antagonistic.

ANTAGONISTS OF OPIUM.

The opposing effects of veratrum viride and opium, and of gelseminum and opium, were next considered, and the importance of distinguishing the different effects produced by medicinal and lethal doses of opium was pointed out, together with its application to the antagonism in question. In poisoning by veratrum viride, or by gelseminum, small doses of opium are indicated, to stimulate the heart and increase arterial tension. In opium poi-

soning, veratrum viride has been successfully used, but is inferior to atropia.

COMBINED ANÆSTHESIA.

The remainder of the lecture was devoted to a consideration of "combined anæsthesia," by which Prof. Bartholow means the use of morphia alone, or of morphia and atropia combined, to counteract the unpleasant or dangerous effects arising in chloroform anæsthesia. Morphia and chloroform unite in their action upon the brain, both inducing insensibility to pain and narcosis, but morphia counteracts the hyperæsthesia present at the beginning of anæsthesia, and giving rise to laryngeal spasm, and also the depressing effect upon the heart. Hence, by combined anæsthesia, the stage of narcosis is lengthened and the danger of heart failure lessened. By their judicious use, a state of insensibility to pain, without loss of consciousness, may be produced and maintained a sufficient time for the performance of minor operations. Dr. Bartholow recommended the use of a one-fourth grain morphia, with one one-hundredth grain atropia, by the stomach, before the inhalation of chloroform or ether, and predicted great success from "combined anæsthesia," if properly administered.

The remaining lectures of the course will be devoted to the consideration of the antagonism between remedies and diseases, and will probably be even more practical in their conclusions than the previous ones have been.

BELLEVUE HOSPITAL REPORTS—COLD PACK IN PNEUMONIA.

The success of the treatment of the high temperature of typhoid fever by the cold pack, has led to its employment in a number of cases of pneumonia attended by great febrile movement. The fact is recognized that it is only in the minority of cases that such treatment can be used. But when a patient has been, previous to the invasion of the disease, perfectly healthy, when the action of the heart is strong, and the general condition of the patient favorable, the cold pack is regarded as of great service.

One case was recently seen in which the rational symptoms and physical signs allowed no hesitation in this diagnosis. The man was admitted to the hospital three days after the initial chill, with well marked signs of solidification of the lower lobe of the left lung. The next morning his temperature was 104° and at noon 105°. He was then placed upon a water bed and a wet sheet wrapped about him, which was sprinkled with cold water every fifteen minutes. In the course of two hours the temperature had fallen to 102.5°, when the pack was removed. The temperature fell a half a degree during the next half hour, and did not begin to rise again for an hour. The patient found the cold pack very comfortable, and was much less restless when in it than when it was removed. During four days this plan of treatment was pursued. Whenever the temperature rose to 103°, the patient was put in the pack and remained there until the mercury reached 101.5°. In no case was it necessary to continue the pack over two hours; usually an hour and a quarter sufficed. The temperature was then kept down by the use of the pack alone, until the fifth day, when a sudden fall to 99°, together with the appearance of the râle redux, indicated that it would no longer be necessary. He made a rapid recovery and has been discharged.

A second case, in which the greater part of the left lung was involved, and in which the temperature reached 105.3° on the day after admission, was treated in the same manner. In this case the cold pack was applied whenever the temperature reached 103°, and continued until it fell to 101.5°. The patient was delirious and restless when cold was first used, but as the temperature fell, became more quiet and rational, and did not dislike the method of treatment. The pack was applied at intervals for five days, after which time the temperature was not sufficiently high to indicate it. He, too, made a good recovery.

A third case recently observed, has confirmed the good effects of this treatment. A man was brought into the hospital with signs of consolidation of the upper lobe of the right lung. The day after admission it was evident that the middle lobe was also involved in the pneumonic process, and as the temperature was 104.5°, the prognosis was considered unfavorable. At 10 P. M. of the same day the temperature rose to 106°. The cold pack was then applied and the patient was kept in it for five hours, the temperature gradually falling to 102°. At the time he was put in the pack, ten grains of quinine were given, and in three hours, ten grains more. After removal from the pack the temperature continued to fall until it reached 101°. During the remainder of the course of the disease the temperature was but once above 103°, and the pack was not again used. The favorable termination was ascribed to the success of the means employed to control the temperature at the critical period of the disease.

These cases are representative of many more occurring in the hospital during the past two months, and the benefit of the cold pack is now admitted by the majority of the attending physicians. It is well known that

in German hospitals the antipyretic treatment of pneumonia is succeeding. It does not seem improbable that it is soon to meet with equal favor in this country. The course of the disease eannot be affected by it, but the most exhausting of its symptoms, viz., the high temperature, can be controlled, and the chances of recovery largely increased. The use of quinine with the application of the cold pack doubtless makes the effect of the latter in depressing the temperature more lasting. But even where it is employed alone the result is most satisfactory.

In addition to antipyretic treatment, patients who are suffering from pneumonia are given as much milk as they can digest; a half ounce of whiskey every two hours, where a heart stimulant is indicated; and as an expectorant mixture, ammonium carbonate, five grains, with spirits chloroform, fifteen drops, every two hours. The last is of great service in lessening the tenacity of the muco-purulent sputa, and in allaying the irritation of the air passages.

TREATMENT OF ANASARCA.

In the treatment of general anasarca in Bright's disease, the necessity of exciting the skin to action is universally recognized. By means of the perspiration, much fluid can be removed from the body and the œdematous condition of the patient relieved. In many cases where no danger exists of the occurrence of œdema of the lungs, pilocarpine may be used to produce this effect. In some cases it is contraindicated by organic or valvular disease of the heart. In these cases the following method is employed in the hospital: The patient is sponged off with alcohol, is then wrapped in a wet sheet, over which several blankets are placed. In the course of an hour the diaphoresis is usually profuse. The use of alcohol before the pack is recent, and has proved successful. It is supposed to act directly upon the sweat glands as a stimulant, and certainly increases the amount of the sweating produced by the pack. When these means do not produce sufficient diaphoresis, the fluid extract of jaborandi in dose of one drachm is given just before the pack is applied, and as it may produce nausea if given by the stomach, a preferable method of administration is by enema, in which case the dose may be increased to one and one-half drachms. In one case at present in the wards this method is daily pursued with good results. The anasarca is rapidly decreasing. When diaphoresis by the hot air bath is attempted, the use of alcohol is found to be of equal service, and in cases of uræmic convulsions it has certainly hastened and increased the excretion through the skin. S.

VIENNA LETTER.

VIENNA, November 8, 1880.

The present letter has been deferred longer than I intended, in order to report in full the very interesting debate. which occupied three full sessions of the Society of Physicians. The subjects were Bigelow's operation of litholapaxy, and poisoning by chlorate of potassium. It was inaugurated by a lecture by Professor Billroth, which is of sufficient importance to justify an abstract in this place. The full report of it may be found in late numbers of the Wiener medizinische Wochenschrift.

LITHOLAPAXY.

Billroth began by stating that he had had very little material of this nature before he came to Vienna. Formerly in Berlin, while assistant to Langenbeck, and subsequently while professor at Zurich, he had met with few cases of stone in the bladder. It was only since his arrival in Vienna, that he had had opportunity to practice lithotripsy to any extent. (It may be remarked here that Billroth considers lithotripsy the normal operation for calculus, and resorts to lithotomy only when the former operation is contraindicated.) Billroth remarked that since the time of Civiale and Thompson, certain statements have been received in a dogmatic way. The first of these is that the prolonged use of an instrument in the bladder is dangerous. Civiale restricted the duration of a lithotriptic attempt to five minutes, and Thompson limited it even to three minutes.

Billroth's experience is based on forty-three cases of lithotripsy. Nine of these ended fatally; seven after the first, and two after the second operation. The causes of death were peritonitis, pericystitis, diphtheria of the bladder, and pyæmia, with metastatic abscesses. Of the thirty-two cases which ended in convalescence, two were terminated in a single operation, five required two operations, nine required three operations, in ten cases four operations were necessary, in five cases five operations, and in one instance ten attempts were required. Hence on the average, about three attempts were necessary according to his experience. Each operation lasted from ten to fifteen minutes, considerably longer than was permitted by the above mentioned dogma, and yet without danger.

The second dogmatic statement referred to the contraindication furnished by purulent cystitis and pyelitis. Nevertheless lithotripsy and even lithotomy have repeatedly been performed, in spite of the existence of severe cystitis at the time.

The third dogma consisted in the danger ascribed to the presence of fragments of stone

in the bladder after the operation. Especially in cases of sharp pyramids of urates and oxalates, violent pains are experienced on the contraction of the bladder, and it was supposed that this could not but irritate the inflamed organ. Formerly it was customary to repeat the operation speedily in such cases, but this was too difficult previous to the time of chloroform, since the patient required time for rest. Even recently, many surgeons have objected to narcosis during lithotripsy, since they wish to make use of the pain of the patient due to the grasping of the mucous membrane by the instrument, as an indication of that occurrence. But in reality, this is too late, for when the pain occurs the bladder has been wounded. Accordingly the narcosis has quite lately been noticed as of high importance in the performance of lithotripsy. The employment of the anæsthetic soon led to the prolongation of the operative sittings, since the relaxation and absence of contraction of the bladder prevented both subjective pain and objective symptoms, and the irritation of the organ. Naturally enough attempts were soon made to remove the fragments of stone by means of so-called evacuating catheters. Hence, but one sitting was required to complete the operation. To Bigelow we really owe the most important step in the history of lithotripsy, the new procedure, called litholapaxy.

Billroth then reported six cases which he had treated by this method. I. Man fifty-nine years of age, very hard stone, three centimeters in diameter, consisting of uric acid and urates. The operation lasted forty-five minutes. II. Man forty-five years of age, phosphatic stone, two centimeters in diameter. Time of operation twenty-three minutes. III. and IV. Very hard calculi, uric acid. Three and one-half and four centimeters in diameter. The operation in the first case lasted fifty-five minutes, in the second two hours. V. Phosphatic stone two and one-half centimeters in diameter; duration of operation twenty-five minutes. VI. Phosphatic stone one and one-half centimeters in diameter; duration of operation twenty minutes. All these cases recovered without febrile reaction. In the fourth case, in which the operation lasted two hours, the patient was seized with a nervous chill not followed by fever. The subsequent course was normal. In all cases the bladder was sounded on the fourth, sixth and eighth days after the operation, but in no instance was a residue of stone found. The time of the operations as stated above, refers both to the crushing and the evacuation. Hence, Bigelow's operation deserves high recommendation, though it should not be undertaken by those unskilled, as it requires a skilled hand for its performance.

Billroth here called attention to two important conditions, namely: the alkalescence of urine, or, what he considers more important, the presence of ammonia in alkaline urine, and the tendency of the bladder to diphtheritic inflammation under such circumstances. The slight erosions caused by fragments of stone lead readily to severe, progressive suppuration in the substance of and around the bladder, if the wounds are brought into contact with ammoniacal urine. The question now arises, how can the ammoniacal fermentation of urine be avoided, or, if begun, be checked within the bladder; since, after removing this condition, litholapaxy should be performed.

Billroth pointed out, further, the severe symptoms caused by the absorption of ammoniacal urine, while acid urine is innocuous, even when injected subcutaneously. The question arises, how can the alkaline reaction be disposed of? Acid should be given, both internally and by injections into the bladder. For instance: phosphoric acid, five grams per day, in water; hydrochloric acid, five to ten grams per day of a five per cent. solution; or benzoic acid, two grams per day, in a litre of water. In some instances, an acid reaction cannot be obtained, as the bacteria of the urine remain in the nooks and crevices of irregularly shaped calculi, and thus maintain the ammoniacal decomposition. Billroth then described the various forms of bacteria occurring in urine, and gave the results of his most recent researches.

POISONING BY CHLORATE OF POTASSIUM.

The second topic was the danger of chlorate of potassium, which Edlessen, of Kiel, had recommended, in 1877, for vesical catarrh. That author had given daily about one hundred grams of a five per cent. solution, altogether about five grams of the salt, in three portions. At the time, he insisted upon its innocuousness. Billroth, however, related a case of sudden death following the administration of two doses, each of ten grams of chlorate of potassium, although like doses had been previously taken by others without producing any toxic effects. The autopsy showed merely a reddish-brown color of the blood and urine. In the absence of all other lesions, it was decided that death was caused by poisoning. This point had previously been commented upon, by Marchand, of Halle, who found that the poisonous action of the salt in question, depended upon its influence upon the blood corpuscles, the hæmoglobin of which dissolved

in the serum, aud appeared in the urine, while severe uræmic symptoms appeared.

Billroth, hence concluded, that caution should be advised in the use of this drug, and that not more than five grams, and perhaps not to exceed two to three grams, should be administered per day.

DEBATE.

The debate which followed was very animated. Dittel related his experience in litholapaxy, based upon twelve successful cases. This surgeon's opinion is acceptcd as authority in all diseases of the urinary organs. He is considered a cautious and reliable observer, and a skillful operator. All the other surgeons present who had had personal experience, spoke likewise in favor of Bigelow's operation, which will hereafter figure definitely in the surgical annals of our city. I will not report the debate in full, since nothing of especial importance except the general recommendation of the procedure was brought forward.

Otherwise, but little scientific news can be reported. It is likely, however, that some of your countrymen knew the late Dr. Löbel, who was at the time of his death, professor extraordinary. He was one of Skoda's most talented disciples, and was universally esteemed as an ingenious and practical physician, and a sharp diagnostician. However, owing to repeated apopletic attacks, he had not been able, for two years before his death, to attend to his former, brilliant practice. Further details of a personal nature would hardly interest your readers, and so I will close for the present. W.

Xylotherapy is said to successfully rival metallotherapy in Paris at present. This consists in the application of various woods to control the morbid sensibility of the skin in hysteria. Yellow cinchona bark has been found to possess thus far the most æsthesiogenetic influence.

Splinter Forceps. — These forceps, known as Dr. Charles Adams' Splinter Forceps, are of the size and form represented by the cut. They will be found a convenient

addition to the pocket case, and are useful in minor dressings, in the extraction of splinters, foreign bodies in the mucous canals, etc.

REVIEWS.

A Treatise on Diphtheria. By A. Jacobi, M. D. New York: William Wood & Co., 1880. W. T. Keener, Chicago.

The work before us is, according to the preface, mainly a translation of the author's chapter on the same subject in Gerhardt's German Handbook of Diseases of Children, with less literature and more therapeutics. Notwithstanding the fact that our literature is not at all meagre on this topic, at least in quantity, this book fills a certain place. We know of none other that exposes so fully and clearly the present state of knowledge, none that gives sounder advice to the practitioner. The author's immense experience, evidently well utilized, gives him the right to speak authoritatively. He does this, however, at times to the neglect of experience recorded by others, noticeably, for instance, by the paucity of statistic figures. On the whole, we believe that the 230 odd pages might have been condensed to some extent. A certain diffuseness betrays itself by the short summary with which every chapter ends.

The first chapter, on the history of the disease is probably the fullest account to be found. It shows as much real research as any one but a professional historian could devote to it. In the following pages on etiology and mode of infection Dr. Jacobi takes a decided standpoint against the bacterial nature of the disease. He does this, however, unlike so many opponents to the germ theory, after thorough acquaintance with the evidence adduced. We must admit, with him, that the bacterial origin is not proven in diphtheria. What we need is the incontrovertible proof, which every one can repeat, and not the vague statements of enthusiasts, like Klebs and others, which no one can confirm. But, on the other hand, there is at present no reason for denying the parasitic nature. It is true, we find a variety of bacteria in the diphtheritic membranes, but nothing else could be expected, considering how exposed these membranes are to the germs in the air and in the food. If we are still in doubt whether any of these microbes bear a definite relation to the disease, it is simply for the reason that the proper conditions have not yet been fulfilled in the various experiments. Moreover, the contagiousness of the disease has been proven beyond doubt, and at present we know nothing about any form of contagious matter except lower or higher fungi. However, such judicious attacks as Dr. Jacobi makes at the germ theory can only help in eliciting the truth. As the result of all investigation, he admits, after all, that

nothing is definitely known of the etiology of the disease but its contagiousness.

As regards the entrance of the virus into the system, he supposes that is mainly accomplished through the respiratory passages. He insists on the observation that wounds, as well as inflamed mucous membranes, are especially prone to take on the diphtheretic process. Whether these are instances of local infection or of localization of the poison already in the system, cannot well be decided. The author believes in both modes of pathogenesis. He points out hence, the necessity of special care of the mucous membranes during the prevalence of an epidemic, and the danger in any operation at such a time, especially tonsillotomy. He thinks that in many instances, the virus has infected the system with little or no localization, hence great constitutional disturbance, without much local involvement. In other cases he believes that there is only local inoculation, but scarcely any absorption of the poison, especially when the part attacked, like the tonsil, is very deficient in lymphatic or blood vessels. Dr. Jacobi lays some stress on the fact that a mild case may infect others most virulently, and vice versa. He refers also to the prevalence of apparently simple throat inflammations during diphtheritic epidemics.

The chapters on symptomatology, pathology and diagnosis are excellently written. The author does not believe in the distinction between croup and diphtheria, but thinks the former disease is merely diphtheria of the larynx, peculiar in its course, on account of the structural peculiarity of its site. He insists strongly on the diagnostic difference between true croup and false croup, or simple laryngitis. The former does not commence with fever, the latter does; hence a high fever when croup is suspected, without laryngoscopic examination, is a favorable prognostic sign. The remarks on prognosis are, on the whole, very judicious and well expressed. Exception, however, will be taken by many to his statement that diphtheria of the larynx, whether it be of primary origin or the result of extension of the fauces, is nearly always fatal.

The treatment he begins with prophylaxis, on which he insists strongly, accomplishing it by isolation and disinfection. He points out, however, the danger of believing in a fallacious security attained by the imperfect use of antiseptics. He praises chlorate of potassium highly, both as a prophylactic and a curative agent, by reason of its influence on the inflamed pharynx, but he devotes also several pages to the danger of an overdose of this salt. All local agents he views with suspicion, pointing out how difficult it is to dissolve a membrane, even under the most favorable conditions, in a test tube. He is, however, partial to chloride of iron, internally and locally. His main reliance is put on stimulants, especially brandy, in large doses. In this connection, a reference is really due to the brochure of Chapman, (1877) who terms alcohol the antidote of diphtheria, and certainly quotes good results.

Dr. Jacobi points out the danger of routine treatment, and demands individualization in every case. This demand is certainly proper, but difficult to carry out in the present state of our knowledge. He himself inclines toward scepticism, but, on the whole, does full justice to the claims of others. The late encouraging statements of Guttman on the value of pilocarpin could not yet be noticed in this publication. The author's comment on tracheotomy seems very judicious. He admits the small chance it affords at the time of a severe epidemic, but takes the standpoint that, no matter how small the chance, it would be wrong to refuse it if death is inevitable without it.

On the whole, we can only say that the book is of such a practical nature, and so soundly written, that every busy practitioner will be the wiser for reading it.

THE ARMY.

Official list of changes of stations and duties of officers of the medical department, United States Army, from Nov. 29, 1880, to Dec. 12, 1880.

Brown, J. M., captain and assistant surgeon. Granted leave of absence for one month, with permission to apply for three months extension. S.O. 264, department of the Missouri, Dec. 2, 1880.

Coues, Elliott, captain and assistant surgeon. Retired from duty assigned him in S.O. 134, July 3, 1876, from A.G.O., and to report in person to the commanding officer, department of Arizona, for assignment to duty. S.O. 251, A.G.O., Nov. 26, 1880.

BOOKS AND PAMPHLETS.

Henry B. Baker, M.D., Lansing, Mich. General Sanitation. Its Importance to the Public Welfare, and a Plea for better Methods. Read before the Sanitary Convention at Grand Rapids, Michigan, Feb. 17, 1880. Reprinted for the author from the annual report of the Michigan State Board of Health, for the year 1880.

Regulation of Medical Practice. Reprinted from the Physician and Surgeon, November, 1880.

Herbert C. Clapp, A.M., M.D., Boston, Mass. Is Consumption Contagious? and can it be transmitted by Means of Food? Boston and Providence: Otis Clapp & Son, 1881.

Mary Putnam Jacobi, M.D., and Victoria A. White, M.D., New York, N. Y. On the use of the Cold Pack followed by Massage in the Treatment of Anæmia. New York. G. P. Putnam's Sons, 1880: Jansen, McClurg & Co., Chicago.

MORTALITY IN CHICAGO FOR NOVEMBER, 1880. POPULATION, CENSUS 1880, 503,298.

Oscar C. DeWolf, M. D., Commissioner of Health. *M. K. Gleason, M. D., Registrar of Vital Statistics.*

ZYMOTIC.	
ORDER 1—*Miasmatic.*	
Carbuncle	1
Cholera—Infantum	2
Croup	82
Diarrhœa	5
Dysentery	1
Diphtheria	94
Entero-Colitis	1
Erysipelas	7
Fever—Cerebro-Spinal	4
Fever—Remittent	4
Fever—Scarlet	13
Fever—Typhoid	14
Fever—Typho-Malarial	1
Measles	3
Pyæmia	5
Septicæmia	3
Small Pox	1
Whooping Cough	3
ORDER 2—*Enthetic or Inoculated.*	
Syphilis—Tertiary	...
Syphilis—Congenital	...
ORDER 3—*Dietetic.*	
Alcoholism—Chronic	3
" Delirium Tremens.	1
Inanition	15
CONSTITUTIONAL.	
ORDER 1—*Diathetic.*	
Anæmia	1
Cancer	3
Cancer—Bladder	1
Cancer—Face	1
Cancer—Kidney	1
Cancer—Liver	1
Cancer—Stomach	9
Cancer—Tongue	1
Cancer—Uterus	1
Dropsy	1
Gangrene	2
Marasmus—Senile	4
Marasmus—Infantile	7
Rheumatism	1
ORDER 2—*Tubercular.*	
Hip Joint Dis	1
Hæmoptysis	3
Phthisis Pulmonalis	59
Scrofula	3
Tubercular Meningitis	3
LOCAL.	
ORDER 1—*Nervous.*	
Apoplexy—Cerebral	9
Congestion of Brain	10
Convulsions—Infantile	58
Encephalitis	7
Epilepsy	3
Grief	1
Hemiplegia	2
Hydrocephalus—Acute	3
Laryngismus Stridulus	1
Meningitis—Cerebral	19
Meningitis—Spinal	...
Paralysis	2
Paralysis—Heart	4
Softening of Brain	1
Sclerencephalia	1
Tumor—Brain	1
ORDER 2—*Circulatory.*	
Aneurism—Aorta	1
Embolism	3
Endocarditis	2
Heart—Organic disease	12
Heart—Valvular disease	5
Heart—Hypertrophy	2
Pericarditis	3
ORDER 3—*Respiratory.*	
Abscess—Pulmonary	...
Asthma	2
Bronchitis	4
" Capillary	13
Congestion of Lungs	9
Laryngitis	2
Pleuritis	1
Pneumonia	35
Pneumonia—Broncho	...
Pneumonia—Pleuro	2
ORDER 4—*Digestive.*	
Colic	1
Colica Pictonum	1
Cirrhosis—Liver	6
Enteremphraxis	1
Enteritis	19
Fatty Degeneration of Liver	1
Gastritis	10
Gastro-Enteritis	2
Hepatitis	5
Hernia—Inguinal	...
Icterus	...
Peritonitis	9
Pharyngitis	1
Ulceration of Bowels	...
" of Stomach	2
ORDER 5—*Urinary.*	
Bright's Disease	10
Cystitis	2
Diabetes	3
Nephritis	2
Calculus	1
ORDER 6—*Generative.*	
Ovarian Tumor	1
" Disease	1
ORDER 7—*Locomotary, Osseous.*	
Necrosis	1
Ostitis	...
ORDER 8—*Locomotory, Integumentary.*	
Abscess—Pelvic	...
DEVELOPMENTAL.	
ORDER 1—*Children.*	
Atelectasis Pulmonum	...
Cyanosis	1
Congenital Deformity	...
Congenital Debility	6
Dentition	2
Spina Bifida	4
Tedious Birth	2
ORDER 2—*Women.*	
Hæmorrhage, Post-Partum	...
Placenta Previa	...
Puerperal Convulsions	...
Puerperal Peritonitis	9
ORDER 3—*Old Age.*	
Debility—Senile	18
ORDER 4—*Nutrition.*	
Asthenia	4
VIOLENCE.	
ORDER 1—*Accident.*	
Burned	2
Crushed	3
Dislocation—Neck	...
Drowning	1
Gunshot Wound	1
Fracture of Skull	1
" Spine	1
Frost	1
Rupture—Liver	...
Run over by wagon	2
Scald	2
Shock from R R Accident	12
" " Street Car "	1
" " Surg. Operat'n.	3
Wound by fall	5
Poison—Sulphuric Acid	...
ORDER 2—*Homicide.*	
Murder	2
Manslaughter	3
ORDER 3—*Suicide.*	
Gunshot	1
Drowning	...
Poison—Morphia	1
Ill Defined	1
Total Deaths	762

DEATHS FROM ZYMOTIC DISEASES, PHTHISIS PULMONALIS AND ACUTE LUNG DISEASES, BY WARDS.

WARDS.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Public Institutions	Total
Small Pox																			1	1
Measles					1				1										1	3
Scarlatina				1	1		3				2			5				1		13
Diphtheria	1	6	4	4	5	4	10	9	1	1	2	6	6	17	7	3	2	6		94
Croup		3		3	6	6	8	5	1	3	4	2	5	19	8	2	3	4		82
Whooping Cough									1	1				1						3
Fever—Typhus																				
" Typhoid				1		2		2		2		2	2	2					1	14
" Cerebro-spinal				1						1		1						1		4
" Malarial					1		1					1	1	1						5
Diarrhœal Diseases			1		2	1	1	1		1				1		1				9
Other Zymotic Diseases	2	1			3	2	1	2		3	1	1	1	4	1	1	1	1	10	35
Totals	3	10	5	10	19	15	24	19	4	12	9	13	15	50	16	7	6	13	13	263
Phthisis Pulmonalis	1	2	2	3	5	3	4	3		2	1	3	1	9	4	4	4		8	59
Acute Lung Diseases		2		6	10	12	7	8	3	2	2	3	2	4	4		4	4	1	74

WARDS.

Wards.	Population.	Density Per Acre.	Deaths under 5 yrs. of age.	Total Deaths in Ward	Deaths in 1,000 of Population.	Wards.	Population.	Density per Acre.	Deaths under 5 yrs. of Age.	Total Deaths in Ward	Deaths in 1,000 of Population.
1	14,765	30.78	5	13	....	12	27,914	12.59	11	28	1.00
2	20,099	51.00	14	26	1.29	13	20,857	14.58	12	34	1.63
3	16,798	38.31	5	12	0.71	14	56,534	18.37	57	112	1 98
4	28,102	26.26	14	35	1.24	15	28,863	33.29	20	41	1.42
5	47,500	16.50	34	67	1.41	16	23,771	44.52	9	28	1.18
6	40,890	9.78	31	57	1.39	17	24,676	64.42	13	33	1.34
7	37,457	26.69	28	57	1.52	18	22,311	40.33	12	25	1.12
8	37,146	57.68	23	50	1.35	Public Institutions			20	50	.....
9	17,477	60.35	4	10	0.57	By violence			2	42	.....
10	15,754	60.61	11	23	1 46	Unknown			.....	.....	.....
11	22,364	38.95	9	19	0.85	Total					762

AGES.

Under 5 years	334	From 4 to 5 years	22	From 40 to 50 years	51	From 90 to 100 years	
Under 1 year	171	" 5 to 10 "	84	" 50 to 60 "	47	100 years and upwards	
From 1 to 2 years	60	" 10 to 20 "	45	" 60 to 70 "	38	Unknown	1
" 2 to 3 "	42	" 20 to 30 "	55	" 70 to 80 "	22		
" 3 to 4 "	39	" 30 to 40 "	74	" 80 to 90 "	11	Total	762

COMPARATIVE MONTHLY MORTALITY.—November, 1878, 591; November, 1879, 719; October, 1880, 766; November, 1880, 762.

Premature Births..... 10 Still Bi ths.....49

1.514 deaths in 1,000. Annual rate, per 1,000, 18.16.

NE 716